Section 5—Final Environmental Impact Statement

APPENDIX M DRAFT STREAM ASSESSMENT REPORT

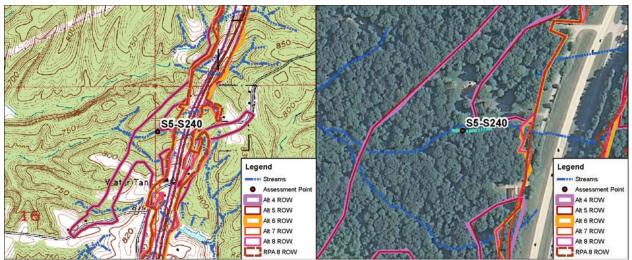
TECHNICAL REPORT APPENDICES

APPENDIX A Stream Impacts and

Stream Relocation Lengths by Alternative

APPENDIX B Stream Site Reports and

Data Sheets



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI

Evaluation Score: 43
Legal Drain (Y/N): N

UTME: 1776752 ft **UTMN**: 14274745 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.5 feet
OHWM Depth:	0.4 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Gravel/cand

_			
Stream S5-S240 –Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	211	0.01	1.12
5	211	0.01	1.12
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S240 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and clay. There is a wide riparian corridor consisting of mature forest on both banks of this stream's floodplain. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S240 are on the second page of this form.



Photograph Taken Upstream



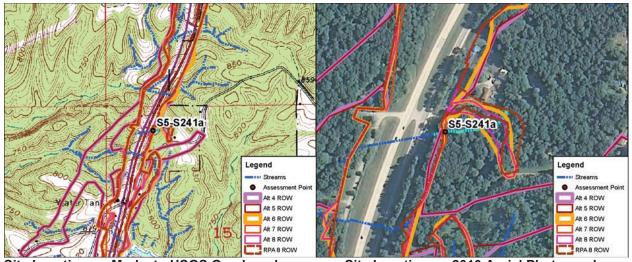
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S240 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30695 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers (Long: -86.51801) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% DEBRIS [3 pts] 10% LEAF PACK/WOODY DEBRIS [3 pts] 10%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 30%	Max = 4
GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 20% ARTIFICIAL [3 pts] 0%	13
Total of Percentages of 0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	"
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 14	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): 0.80 This information must also be completed	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' AVERAGE BANKFULL WIDTH (meters):	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): 0.80 L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10m AVERAGE BANKFULL WIDTH (meters): 0.80 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) V V Mature Forest, Wetland Conservation Tillage	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) and River Left (L	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Viv Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): L R (Nost Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed Conservation Tillage Urban or Industrial Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland D Conservation Tillage Urban or Industrial Open Pasture, Row Completed Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Notes Riparian Width RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.80 L R (Most Predominant per Bank) L R (Most Predominant per Bank) I R (Most Predominant per Bank)	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	5 STOP
COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters):	5
COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Notes (L) and Right (R) as looking downstream Mature Forest, Wetland RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): 0	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters)	5
COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.0 AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (personal packed of the packed of	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters)	5 5 top

ADDITIONAL STREA	AM INFORMATION (This Information Must Also		S240
QHEI PERI	FORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)	
DOWNSTF WWH Name: Inc CWH Name: EWH Name:	REAM DESIGNATED USE(S)	_ Distance from Evaluated Stream _ Distance from Evaluated Stream _ Distance from Evaluated Stream _	
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE EN	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle N		NRCS Soil Map Page: 8 NRCS Soil Map Stream Order	
County: Monroe		ship / City: Washington	
MISCELLA	NEOUS		
Base Flow Conditions	s? (Y/N):_N Date of last precipitation:_	05/10/06 Quantity: 0.89	
Photograph Informati			
Elevated Turbidity? (Y/N): N Canopy (% open): 10%	%	
Were samples collec	ted for water chemistry? (Y/N): _N (Note lab	b sample no. or id. and attach results) Lab Number:	
		pH (S.U.) Conductivity (μmhos/cm)	
		, please explain:	
Additional comments	ruescription or politition impacts		
	ID number. Include appropriate field data Voucher? (Y/N) Salamanders O bserved? (Y/N) Voucher? (Y/N) Aquat	er collections optional. NOTE: all voucher samples must be labeled with a sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	the site
		OF STREAM REACH (This <u>must</u> be completed):	on
FLOW →	See Stream Assessment For S5-S240 for site topogramaerial photograph, and r	aphic map,	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 50
Legal Drain (Y/N): N

UTME: 1777684 ft **UTMN**: 14275193 ft

USGS Quadrangle:	Modesto
Section:	15
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.0 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Gravel/sand

Stream S5-S241a – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	40	0.01	0.09
5	41	0.01	0.10
6	197	0.01	0.78
7	71	0.01	0.20
8	146	0.01	0.49
RPA 8	117	0.01	0.52

Description of Potential Impact:

Impacts to S5-S241a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor with the adjacent floodplain consisting of mature forests on both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S241a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



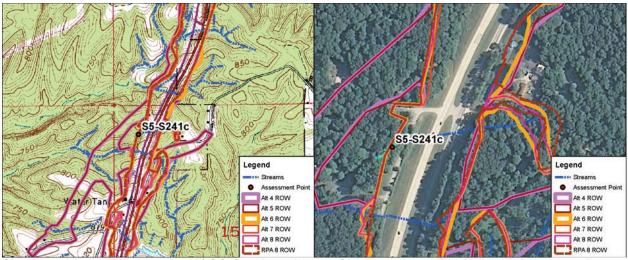
Primary Headwater Habitat Evaluation Form

50

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S241a DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. 39.30817 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long: -86.51471) (Natural-Class II) A Rogers SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 5% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% Substrate 5% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 50% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 20 35% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 15 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.0' / 0.2' AVERAGE BANKFULL WIDTH (meters): 1.25 15 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFO	RMATION (This Information Mu	ust Also be Completed):	S5-S241a
	1? - Yes ✓ No QHEI Scor		ach Completed QHEI Form)
DOWNSTREAM DE WWH Name: Indian Cree CWH Name: EWH Name:	SIGNATED USE(S)		Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH	COPIES OF MAPS, INCLUDING	THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Mo	desto	NRCS Soil Map	Page: 8 NRCS Soil Map Stream Order
County: Monroe		Township / City: Wash	ington
MISCELLANEOUS Base Flow Conditions? (Y/N):_ Photograph Information:	Canopy (% open): N Iter chemistry? (Y/N): Dissolved Oxygen (mg Intative of the stream (Y/N)	Note lab sample no. or id. // pH (S.U.) If not, please explain:	Quantity: 0.89 and attach results) Lab Number: Conductivity (µmhos/cm)
	(If Yes, Record all observations. ID number. Include appropriate f Voucher? (Y/N) Salamal (Y/N) Voucher? (Y/N)	rield data sheets from the P nders Observed? (Y/N) Aquatic Macroinvertebra	. /===
FLOW S5-S2	tream Assessment 41a for site top 1 photograph, an	ographic map,	





Site Location on Washington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Washington

Stream Name:Unnamed Trib. Indian CreekSection:15Quarter:NWTownship:T10NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120202010 OHWM Width: 5.5 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes 45

Evaluation Score: 45 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Sand/gravel

UTME: 1777215 ft **UTMN**: 14275090 ft

Stream S5-S241c – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	41	0.01	0.17
5	39	0.01	0.17
6	39	0.01	0.17
7	39	0.01	0.17
8	39	0.01	0.17
RPA 8	39	0.01	0.17

Description of Potential Impact:

Impacts to S5-S241c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand and gravel. There is a wide riparian corridor consisting of mature forest on both banks of the adjacent floodplain area. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S241c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



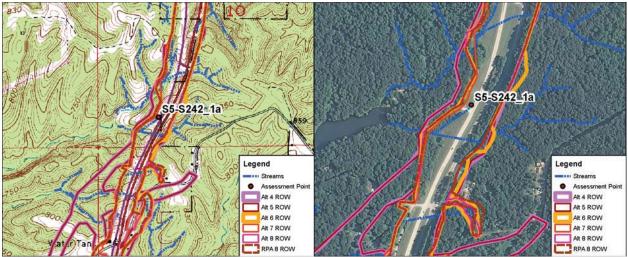
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S241c RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 145 LAT. 39.30789 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51637) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	LUCE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 5% SILT [3 pt] 15%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
✓ GRAVEL (2-64 mm) [9 pts] 25% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	20
Table (Percentage)	
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.68	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	
L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) L R Mature Forest, Wetland D Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture Row Cr	op
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m L R (Most Predominant per Bank) Conservation Tillage Urban or Industrial Open Pasture, Row Credominant per Bank)	op
L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture Row Creek	op -
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None L R (Most Predominant per Bank) L R (op -
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing L R (Most Predominant per Bank) L R (Most Predomina	-
L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) L R (Most Predominant per Bank) L R (Most Predominant pe	-
L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): COMMENTS L R (Most Predominant per Bank) L R (Destance) Conservation Tillage Urban or Industrial Open Pasture, Row Creation Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	-
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) Conservation Tillage I R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Per Bank) Conservation Tillage Urban or Industrial Open Pasture, Row Crediction Mining or Construction Mining or Construction Conservation Tillage Urban or Industrial Open Pasture, Row Crediction Mining or Construction Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	-
L R ((Per Bank)	-
L R (Per Bank) Vide >10m Moderate 5-10m Moderate 5-10m Narrow <5m None Compensature Compensature Residential, Park, New Field None Commens Fenced Pasture Mining or Construction Commens Stream Flowing Subsurface flow with isolated pools (Interstitial) Commens SINUOSITY (Number of bends per 61 m (200 ft) of channel) Nature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Creative Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) Commens SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): None 1.0 3.0	-) <u> </u>

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed	S5-S241c
QHEI PERFORMED? - Yes Mo QHEI Score (If Yes,	Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Indian Creek	Distance from Evaluated Stream
CWH Name:EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERS	
USGS Quadrangle Name: Modesto NRCS Soil Ma	
County: Monroe Township / City: Wa	shington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 10/13/11	Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or	id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.	.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
and carrying reach representative or any stream (1777)	
<u> </u>	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections opti	onal. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from the	·
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinverte	N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N)
Comments Regarding Biology:	, N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	M REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation	n and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S241c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: HHEI
Evaluation Score: 12

Legal Drain (Y/N): N

UTME: 1777692 ft **UTMN**: 14276324 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Areas	0.01 can

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S242_1a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	76	0.01	0.00
5	76	0.01	0.00
6	76	0.01	0.00
7	76	0.01	0.00
8	76	0.01	0.00
RPA 8	76	0.01	0.00

Description of Potential Impact:

Impacts to S5-S242_1a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists of entirely of existing maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242_1a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

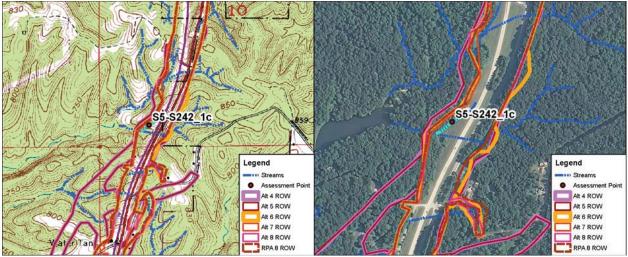


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S242_1a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 75 LAT. 39.31127 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51371) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECOVERING RECOVERING RECENT OR NO RECOVERING RECOVERING RECOVERING RECENT OR NO RECOVERING RECOVERING RECOVERING RECOVERING RECOVERING RECOVERING RECENT OR NO RECOVERING RECOVER	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ 0% ☐ ☐ MUCK [0 pts] ☐ ☐ 100% ☐ 100% ☐ ☐ 100%	7
Tatal of Parameters of (2)	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
0.114.4.01/0.01	
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
	5
AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (R) as looking downstream \$\frac{1}{2}\text{NOTE: River Left (R) as looking downstream \$\frac{1}{2}\text{R}\$.	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V V Urban or Industrial	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V V Urban or Industrial Field Conservation Forest Conservation Field	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V V Urban or Industrial Field Conservation Forest Row Conservation Field	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Cr	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOOMENTS FLOOPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old I	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Wide > 10m Residential, Park, New Field Open Pasture, Row Cr None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2} \] RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Immature Forest, Shrub or Old Immature Forest, Shrub or O	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣ NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cr V None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 3.0	rop t)

FLOW

See Stream Assessment Form S5-S242_1a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Stream Name:UnnaQuarter:SWRange:R1W

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: HHEI
Evaluation Score: 12
Legal Drain (Y/N): N

UTME: 1777730 ft **UTMN**: 14276148 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Artificial

Stream S5-S242_1c – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	416	0.01	0.48	
5	416	0.01	0.48	
6	416	0.01	0.41	
7	416	0.01	0.24	
8	416	0.01	0.41	
RPA 8	416	0.01	0.41	

Description of Potential Impact:

Impacts to S5-S242_1c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to SR 37. There is no riparian buffer associated with the left bank and a wide riparian buffer along the right bank of this artificial channel. The floodplain consists of new field along the left adjacent floodplain and immature forest along the right floodplain. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242_1c are on the second page of this form.



Photograph Taken Upstream

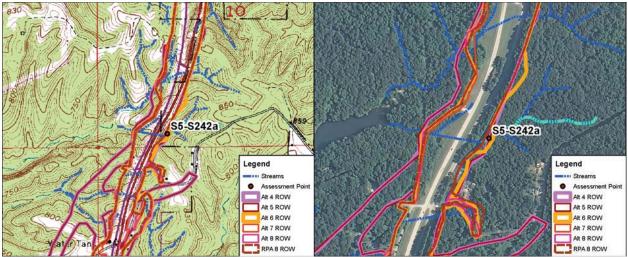


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S242_1c RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31079 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51453) (Concrete Gutter-Modified CI	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 4
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	7
Ortivo (*2 min) [o pto]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Proper Pasture Pow Completed Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Open Pasture, Row Completed Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): O1.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the completed in the complete	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): D.36	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): OHW 1.2'/0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): D.36	Width Max=30





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

05120202010 Watershed: Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 39

Legal Drain (Y/N): Ν

UTME: 1778148ft **UTMN:** 14275981 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	5.0 feet
OHWM Depth:	0.3 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.08 sq mi
Dradominant Sub	Crovelloon

Predominant Sub: Gravel/sand

Stream S5-S242a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	118	0.01	0.31	
5	115	0.01	0.29	
6	174	0.02	0.39	
7	36	0.01	0.03	
8	36	0.01	0.03	
RPA 8	36	0.01	0.03	

Description of Potential Impact:

Impacts to S5-S242a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor consisting of mature forest along both banks, as well as into the floodplain of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



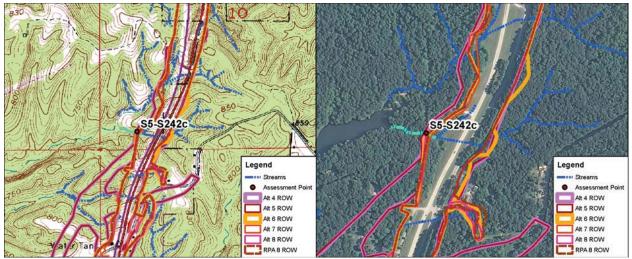
ChieFPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S242a RIVER BASIN White River DRAINAGE AREA (mi²)	0.08
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31033 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51306) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	Folite
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 5%	Substrat Max = 40
COBBLE (65-256 mm) [12 pts]	I III I
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] 40% MUCK [0 pts] 0% ARTIFICIAL [3 pts] 0%	19
Total of Percentages of 0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
	De al Dan
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Dep Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Danitian
	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.52 This information function with also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A	Max=30
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	20 rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moder AVERAGE BANKFULL WIDTH (meters): 1.52 AVERAGE BANKFULL WIDTH (meters): 1.52 AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And the properties of the properties o	20 rop
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Penced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) AVERAGE BANKFULL WIDTH (meters): 1.52 AVERAGE BANKFULL WIDTH (meters): 1.52 AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Narrow Left (L) and Right (R) as looking downstream Narrow Short Conservation Tillage Urban or Industrial Open Pasture, Row C Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	20 rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10m Viz Moters, Shrub or Old Urban or Industrial Field Urban or Industrial Field Open Pasture, Row C Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Conservation (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box):	20 rop
COMMENTS OHW = 5'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Notes and Notes and Notes are sensitively and the sensitive sensit	20 rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10m Viz Moters, Shrub or Old Urban or Industrial Field Urban or Industrial Field Open Pasture, Row C Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Conservation (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box):	20 Top

ADDITIONAL STREA	M INFORMATION (This Information Must Als	o be Completed):		55-5242a
QHEI PERF	FORMED? - Yes No QHEI Score	(If Yes, Attac	ch Completed QHEI Forn	1)
DOWNSTR WWH Name: Ind CWH Name:	REAM DESIGNATED USE(S)		_ Distance from Evaluate	
EWH Name:			Distance from Evaluate	
	ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	ame: Modesto	NRCS Soil Map Pa	age: NRCS Soil	Map Stream Order
County: Monroe	Town	ship / City: Washin	ngton	
MISCELLA	NEOUS			
Base Flow Conditions	s? (Y/N):_Y Date of last precipitation:	10/13/11	Quantity: 0.25	
Photograph Information	on: _			
Elevated Turbidity? (\	(/N): N Canopy (% open): 09	%		
Were samples collect	ted for water chemistry? (Y/N): N (Note la	ab sample no. or id. a	and attach results) Lab Nu	ımber:
Field Measures: T	emp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (μm	nos/cm)
Is the sampling reach	representative of the stream (Y/N) Y If no	t, please explain:		
Additional comments/	description of pollution impacts:			
BIOTIC EV	/ALUATION			
Performed? (Y/N): _	(If Yes, Record all observations. Vouch ID number. Include appropriate field da	•	•	
Fish Observed? (Y/N) Frogs or Tadpoles Ob	N Voucher? (Y/N) N Salamanders of Served? (Y/N) N Voucher? (Y/N) N Aqua	Observed? (Y/N) Natic Macroinvertebrate	Voucher? (Y/N) N es Observed? (Y/N) N	Voucher? (Y/N)
Comments Regarding	g Biology:			
DRAW	ING AND NARRATIVE DESCRIPTION	OF STREAM R	EACH (This <u>must</u> b	e completed):
Include import	ant landmarks and other features of interest fo	or site evaluation and	d a narrative description	of the stream's location
•	See Stream Assessment Fo	⊃.rm		
FLOW	S5-S242a for site topog			
	aerial photograph, and			

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 52

Legal Drain (Y/N): Ν **UTME**: 1777470 ft **UTMN:** 14276068 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 6.9 feet OHWM Depth: 1.1 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.08 sq mi

Gravel/cobble **Predominant Sub:**

Stream S5-S242c – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	116	0.02	0.51	
5	136	0.02	0.59	
6	92	0.01	0.36	
7	49	0.01	0.17	
8	94	0.01	0.35	
RPA 8	82	0.01	0.30	

Description of Potential Impact:

Impacts to S5-S242c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and cobble. There is a wide riparian corridor consisting of mature forest along both banks, as well as into the floodplain of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S242c DRAINAGE AREA (mi²) 0.08 SITE NUMBER 200 LAT. 39.31058 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long: -86.51545) (Natural-Class II) A Rogers SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 10% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% Substrate 5% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 4025% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 50% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 27 5% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 25.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: | 6 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 5 3 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 6.9' / 1.1' 2.50 AVERAGE BANKFULL WIDTH (meters): 20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3

Severe (10 ft/100 ft)

Moderate (2 ft/100 ft)

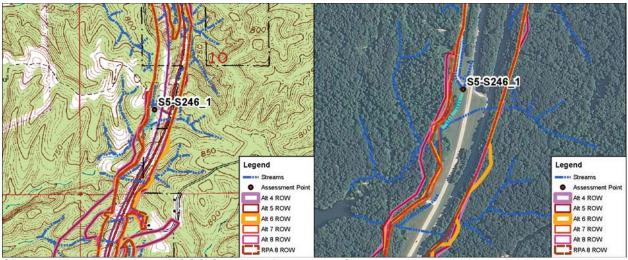
Flat (0.5 ft/100 ft)

STREAM GRADIENT ESTIMATE

✓ Flat to Moderate

ADDITIONAL STRE	EAM INFORMATION (This Information M	ust Also be Comple	eted):	S5-S2	242c
	RFORMED? - Yes ✓ No QHEI Sco			ach Completed QHEI Form)	
	FREAM DESIGNATED USE(S)	`		Distance from Evaluated Stream	7
EWH Name:				Distance from Evaluated Stream	
	G: ATTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATE	ERSHED	D AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle I	Name: Modesto	NRCS Soi	il Map F	Page: 8 NRCS Soil Map Stream Order	1
County: Monroe		Township / City:	Washi	ngton	
MISCELL	ANEOUS				
Base Flow Condition				Quantity: 0.89	
Photograph Informa	tion: 190 Upstream / 191 Downstream /	/ 192 Right bank / 19	93 Left	bank	
Elevated Turbidity?	(Y/N): N Canopy (% open): _	20%			
Were samples colle	ected for water chemistry? (Y/N):	(Note lab sample no	o. or id. a	and attach results) Lab Number:	
Field Measures:	Temp (°C) Dissolved Oxygen (mg	g/l)pH (\$	S.U.)	Conductivity (µmhos/cm)	
Is the sampling read	ch representative of the stream (Y/N)	If not, please expl	lain:		
Additional comment	ts/description of pollution impacts:				
BIOTIC E	EVALUATION				
Performed? (Y/N): _			-	I. NOTE: all voucher samples must be labeled with imary Headwater Habitat Assessment Manual)	the site
Fish Observed? (Y/I	/	anders Observed? (Y Aquatic Macroinv	/	Voucher? (Y/N) tes Observed? (Y/N) Voucher? (Y/N)	
Comments Regarding	ng Biology:				_
-					
DRAV	VING AND NARRATIVE DESCRI	PTION OF STRE	EAM F	REACH (This <u>must</u> be completed):	
Include impo	rtant landmarks and other features of int	terest for site evalua	ation an	nd a narrative description of the stream's location	on
FLOW -	See Stream Assessmer				
	S5-S242c for site to aerial photograph, a		_		
	active bilocodiabil, c	TODOUT	_ P		





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Indian Ck
Quarter: SW
Range: R1W

Watershed: 05120202010 Channelized/Type: Ves/Concrete Gutter

Stream Type: Ephemeral HHEI

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778249 ft **UTMN**: 14277449 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Artificial

1				
Stream S5-S246_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	428	0.02	0.26	
5	428	0.02	0.26	
6	428	0.02	0.25	
7	428	0.02	0.22	
8	428	0.02	0.25	
RPA 8	428	0.02	0.25	

Description of Potential Impact:

Impacts to S5-S246_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along West Burma Road and following SR 37 to S5-S246c. There is no riparian buffer associated with this artificial channel on the left bank and a wide buffer on the right. The floodplain consists of transportation along the left floodplain and immature forest along the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_1 are on the second page of this form.



Photograph Taken Upstream



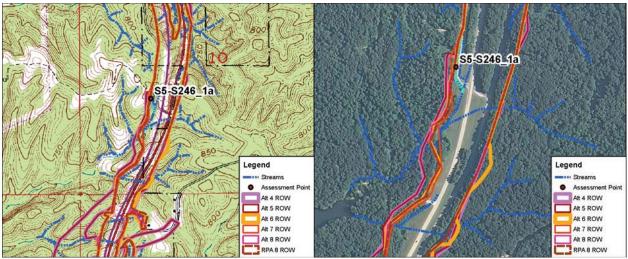
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S246_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31436 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51267) (Concrete Gutter-Modified Classification)	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊢ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	
> 3 0 m = 1 0 m /> 0' 7" = 13'\ [25 nte]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.64	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 0.64 O.64 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH AVERAGE BANKFULL WIDTH (meters): O.64 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Virban or Industrial	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Notes Riparian Wide > 1.0 m	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH Cere Bank Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.64 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.64 Let Conservation Tillage Immature Forest, Wetland Open Pasture, Row C	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Notes Riparian Wide > 1.0 m	5 STOP
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m	5 STOP
COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing AVERAGE BANKFULL WIDTH (meters): 0.64 AVERAGE BANKFULL WIDTH (meter	5 Top
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.64 AVERAGE BANKFULL WIDTH (meters): 0.64 AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN VIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking downstre	5 Top
COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Enveronment (L) and Right (R) as looking downstream Mature Forest, Wetland Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	5 Top
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH (meters): 0.64 This information must also be completed RIPARIAN WIDTH (meters): RIPARIAN WIDTH	5 Top
COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Net PLOODPLAIN QUALITY Note =	5 Top
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Fenced Pasture COMMENTS AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mott: River Left (L) and Right (R) as looking downstream And River Left (L) and Right (R) as looking downstream And River Left (L) and Right (R) as looking downstream Residentiant per Bank) RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row C None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	5 5 top

				S5-S246_1
ADDITIONAL STREA	M INFORMATION (This Information M	Must Also be Completed):		_
QHEI PERF	ORMED? - Yes V No QHEI Sc	ore (If Yes, Att	ach Completed QHEI Forn	m)
	EAM DESIGNATED USE(S)			
WWH Name: Indi	an Creek		Distance from Evaluat	
CWH Name:			Distance from Evaluate	
EWH Name:			Distance from Evaluate	ed Stream
	ATTACH COPIES OF MAPS, INCLUDIN	G THE ENTIRE WATERSHE	D AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map	Page: NRCS Soi	Map Stream Order
County: Monroe		Township / City: Wash	ington	
MISCELLAI	NEOUS			
Base Flow Conditions	? (Y/N): Y _ Date of last precipita	ution: 04/24/12	Quantity: 0.15	
Photograph Informatio				
Elevated Turbidity? (Y	N	90%		
Were samples collecte	ed for water chemistry? (Y/N): N	(Note lab sample no. or id.	and attach results) Lab No	umber:
	emp (°C) Dissolved Oxygen (n	ng/l) pH (S.U.)	Conductivity (µm	hos/cm)
Is the sampling reach	representative of the stream (Y/N)	If not, please explain:		
Additional comments/o	description of pollution impacts:			
BIOTIC EV	ALUATION			
Performed? (Y/N): _	(If Yes, Record all observations	s. Voucher collections option	al. NOTE: all voucher samp	eles must be labeled with the site
	ID number. Include appropriate		·	
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salam	nanders Observed? (Y/N)	Voucher? (Y/N)	N
Frogs or Tadpoles Ob	served? (Y/N) N Voucher? (Y/N) N	Aquatic Macroinvertebra	ates Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding	Biology:			
DRAWI	NG AND NARRATIVE DESCR	IPTION OF STREAM	REACH (This <u>must</u> l	pe completed):
Include importa	ant landmarks and other features of ir	nterest for site evaluation a	nd a narrative description	of the stream's location
FLOW -	See Stream Assessme	nt Form		
	S5-S246_1 for site	topographic ma	ap,	
	aerial photograph,	and resource p	photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Indian Ck Quarter: SW

Range: R1W

Watershed: 05120202010 Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral HHEI

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778174 ft **UTMN**: 14277682 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S246_1a – Modified Class I PHWH						
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)			
4	592	0.03	0.65			
5	592	0.03	0.67			
6	592	0.03	0.18			
7	592	0.03	0.44			
8	592	0.03	0.17			
RPA 8	592	0.03	0.12			

Description of Potential Impact:

Impacts to S5-S246_1a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along West Burma Road and following SR 37 to S5-S246c. There is no riparian buffer associated with this artificial channel on the left bank and a wide buffer on the right. The floodplain consists of transportation along the left floodplain and immature forest along the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_1a are on the second page of this form.



Photograph Taken Upstream

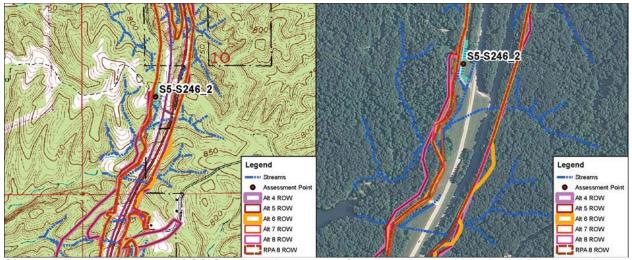


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S246_1a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31500 LONG. RIVER CODE RIVER MILE	
DATE 02/19/13 SCORER DEW COMMENTS (Long: -86.51292) (Concrete Gutter-Modified Cl	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] BEDROCK [16 pt] D' FINE DETRITUS [3 pts] 0%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ O% ☐ ☐ ☐ ARTIFICIAL [3 pts] ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	7
Total of Percentages of Occor (A) Substrate Percentage (B)	A
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max - 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
OUNM O 41/0 OI	
COMMENTS OHW 2.170.2 AVERAGE BANKFULL WIDTH (meters): 0.37	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}\text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\text{ River Left (L) and Right (R) as looking downstream \$\frac{1}{2} River Riv	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ Wide >10m Mature Forest, Wetland Conservation Tillage	
Wide >10m	rop
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m None Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture, Row C	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture, Row C	
Wide >10m	n
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, New Field Immature Forest, Shrub or Old Immature Forest, Shrub or Old Immature Forest, Shrub or Old Immature Forest, New Field Immature Forest, Shrub or Old Immature Forest, New Field Immature Forest, New Fiel	n
Wide >10m	n
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, New Field Immature Forest, New Field Impature Forest, Shrub or Old Immature Forest, New Field Impature Forest, Ne	n
Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-	n
Wide >10m	n nt)
Wide >10m	n nt)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: HHEI
Evaluation Score: 12

Legal Drain (Y/N): N **UTMN:** 14277715 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** No **IDEM Jurisdiction:** No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S246_2 – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	462	0.01	0.30
5	462	0.01	0.30
6	462	0.01	0.30
7	462	0.01	0.30
8	462	0.01	0.30
RPA 8	462	0.01	0.30

Description of Potential Impact:

Impacts to S5-S246_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter adjacent to West Burma Road. There is no riparian buffer associated with this artificial channel. The floodplain consists of transportation use along the right bank and old field along the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_2 are on the second page of this form.



Photograph Taken Upstream

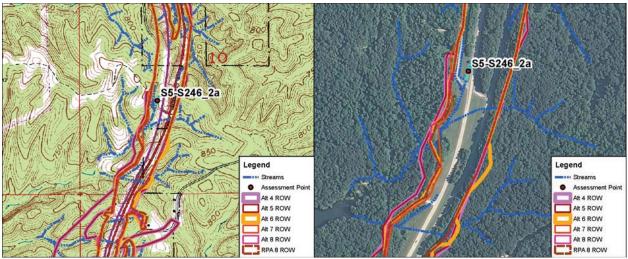


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S246_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31509 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51276) (Concrete Gutter-Modified Classification)	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	""
	De el Des
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Wiax-30
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
This information <u>must</u> also be completed	5
	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left (L)	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left (L	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row C	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left (L	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field V None Fenced Pasture This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row C Mining or Construction COMMENTS	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m This information must also be completed NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** Residential, Park, Net and a looking downstream ** Conservation Tillage Open Pasture, Row C Mining or Construction Comments Flow Regime (At Time of Evaluation) (Check ONLY one box): Stream Flowing	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Immature Forest, Shrub or Old Viban or Industrial	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣ NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Winham or Conservation Tillage Winham or Industrial Per COMMENTS Fenced Pasture Mining or Construction COMMENTS Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Wide >10m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Wide >10m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	rop





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral Evaluation Type: HHEI Evaluation Score: 12

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778306 ft **UTMN**: 14277639 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area	0.01 sam

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S246_2a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	211	0.01	0.17
5	211	0.01	0.17
6	211	0.01	0.17
7	211	0.01	0.17
8	211	0.01	0.17
RPA 8	211	0.01	0.17

Description of Potential Impact:

Impacts to S5-S246_2a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists entirely of transportation uses. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_2a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

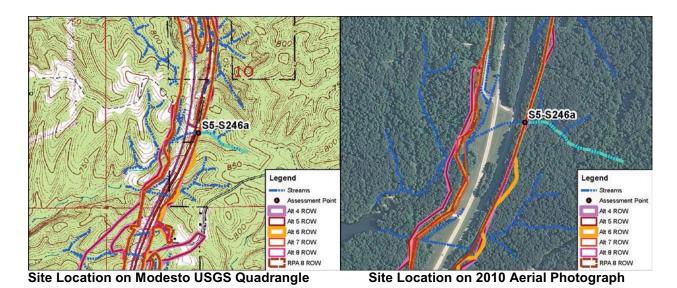


SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S246_2a RIVER BASIN White River DRAINAGE AREA (mi²) I	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31488 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51247) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ ☐ 0%	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Total of Percentages of 0.00% (A) Substrate Percentage 400% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 6 Check 100% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] $< 1.0 m (<=3' 3") [5 pts]$	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37 This information must also be completed	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): L R (NOST Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH AR (Per Bank) Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.37 L R (Nost Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Virban or Industrial	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Ba	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.37	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Ba	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None Residential, Park, New Field AVERAGE BANKFULL WIDTH (meters): 0.37 Conservation Tillage (moterate) I manual per Bank (most Predominant per	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream in the conservation Tillage RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Per Destruction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.47 AVERAGE BANKFULL WIDTH (meters):	5 Sop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate, Son (Intermitten) AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.47 AV	5 Sop
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Shrub or Old Field Open Pasture, Row Completed Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	5 Sop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	5 Sop
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	5 Sop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10mm Mature Forest, Wetland Moderate 5-10m Mature Forest, Shrub or Old Field Marrow <5m Residential, Park, New Field Open Pasture, Row Completed Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Riparian Wide >10mm Mature Forest, Wetland Conservation Tillage Moderate 5-10mm Residential, Park, New Field Open Pasture, Row Completed Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Open Pasture, Row Completed Wining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	5 Sop

FLOW →

See Stream Assessment Form S5-S246_2a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream

Stream Name: Unnamed Trib. Indian Ck Quarter: SW

Range: R1W
Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 40 Legal Drain (Y/N): N

UTME: 1778622 ft **UTMN**: 14277251 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	9.0 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.08 sq mi
	o

Watershed Area: 0.08 sq mi Predominant Sub: Sand/gravel

Stream S5-S246a – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	39	0.01	0.14
5	41	0.01	0.15
6	21	0.01	0.08
7	21	0.01	0.08
8	21	0.01	0.08
RPA 8	21	0.01	0.08

Description of Potential Impact:

Impacts to S5-S246a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor where these Alternatives cross this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246a are on the second page of this form.



Photograph Taken Upstream





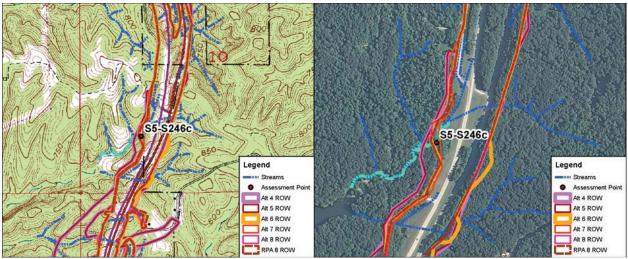
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S246a RIVER BASIN White River DRAINAGE AREA (mi²)	.08
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31381 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51135) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] 0% SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt]	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 20% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	20
Total of Percentages of 5.00% (A) Substrate Percentage Check 100%	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 9'/0.9' AVERAGE BANKFULL WIDTH (meters): 2.75	20
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	эр
None Fenced Pasture Mining or Construction	
COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral))
	i .
COMMENTS_	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	L
	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.5	

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Comp	leted):
QHEI PERF	FORMED? - Yes / No QHEI Score (If	Yes, Attach Completed QHEI Form)
DOWNSTR	EEAM DESIGNATED USE(S)	
WWH Name: Ind	ian Creek	_ Distance from Evaluated Stream _
CWH Name: _		_ Distance from Evaluated Stream _
EWH Name:		Distance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WAT	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	ame: Modesto NRCS Sc	oil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City:_	Washington
MISCELLA	NEOUS	
Base Flow Conditions	e? (Y/N): Y Date of last precipitation:10/13/1	1 Quantity: 0.25
Photograph Information	on:	
Elevated Turbidity? (\	//N): _N Canopy (% open):	
Were samples collect	ed for water chemistry? (Y/N): N (Note lab sample no	o. or id. and attach results) Lab Number:
Field Measures: T	emp (°C) Dissolved Oxygen (mg/l) pH ((S.U.) Conductivity (µmhos/cm)
Is the sampling reach	representative of the stream (Y/N) Y If not, please exp	olain:
Additional comments/	description of pollution impacts:	
BIOTIC EV	/ALUATION	
Performed? (Y/N): _	(If Yes, Record all observations. Voucher collections	s optional. NOTE: all voucher samples must be labeled with the site
	ID number. Include appropriate field data sheets from	m the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Ob	oserved? (Y/N) N Voucher? (Y/N) N Aquatic Macroin	vertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding	g Biology:	
DRAW	ING AND NARRATIVE DESCRIPTION OF STR	EAM REACH (This must be completed):
		ation and a narrative description of the stream's location
morado import		ation and a narrative accomption of the calculation
•	Coo Ctroom Aggoggment Form	
FLOW	See Stream Assessment Form	
	S5-S246a for site topographic	_
	aerial photograph, and resour	ce photographs

Page - 2

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI

Evaluation Score: 38 Legal Drain (Y/N): N

UTME: 1777965 ft **UTMN**: 14276874 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 4.2 feet OHWM Depth: 0.7 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.08 sq mi Sand/gravel **Predominant Sub:**

Stream S5-S246c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	456	0.04	1.13
5	455	0.04	1.11
6	340	0.03	0.54
7	235	0.02	0.25
8	345	0.03	0.58
RPA 8	342	0.03	0.45

Description of Potential Impact:

Impacts to S5-S246c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor on the right bank and a moderately-wide buffer on the left bank where these Alternatives cross this stream. The adjacent floodplain consists of immature forest on the adjacent right floodplain area while the left floodplain consists of an old field through a utility line ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

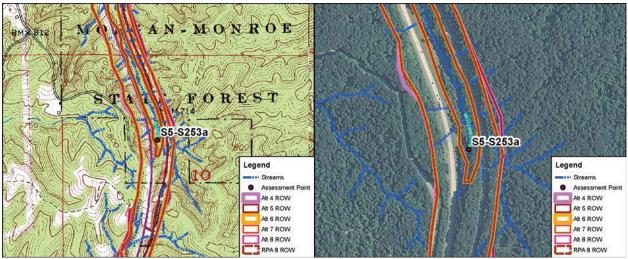


38

SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S246C RIVER BASIN White River DRAINAGE AREA (mi²)	80.0
LENGTH OF STREAM REACH (ft) 121 LAT. 39.31278 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51368) (Natural -Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 0%	18
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check <i>ONLY</i> one box):	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 4.2'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.28	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\text{NOTE: River Left (L) and Right (R) as looking downstream \$\text{3}\$	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Urban or Industrial	100
L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage L R (Most Predominant per Bank) L R (Per Bank)	•
L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage L R (Most Predominant per Bank) L R (Most Predominan	•
L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS L R (Most Predominant per Bank) L R	•
L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Narrow <5m None L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage L R (Most Predominant per Bank) L R (Most Predominan]
L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fo]
L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fo]
L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fo]
L R (Per Bank) Wide >10m Mature Forest, Wetland Dimmature Forest, Wetland Urban or Industrial Wining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) L R (Most Predominant per Bank) L R (Passed Passed Passe]
L R (Per Bank) Vide >10m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Vetland Immature Forest, Pater Forest, P	t)
L R (Per Bank) V Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Industrial Immature Forest, Shrub or Old Immature Forest, Shrub or Ol	t)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	: 6 C
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S)	1
WWH Name: Indian Creek Distance from Evaluated Stream	-
CWH Name: Distance from Evaluated Stream	
EWH Name: Distance from Evaluated Stream	l
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: Monroe Township / City: Washington	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:	
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 10%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)]
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	_
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the	a sita
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	· Oito
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N	
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):	_
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	
See Stream Assessment Form	
S5-S246c for site topographic map,	
aerial photograph, and resource photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Secret 12

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778660 ft **UTMN**: 14279263 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Silt/Clay

Stream S5-S253a – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	416	0.02	0.63		
5	416	0.02	0.63		
6	416	0.02	0.63		
7	416	0.02	0.63		
8	416	0.02	0.63		
RPA 8	416	0.02	0.63		

Description of Potential Impact:

Impacts to S5-S253a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of silt and clay. There is wide riparian corridor on both the right and left banks of this stream consisting of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253a are on the second page of this form.



Photograph Taken Downstream



Photograph Taken Upstream



Primary Headwater Habitat Evaluation Form

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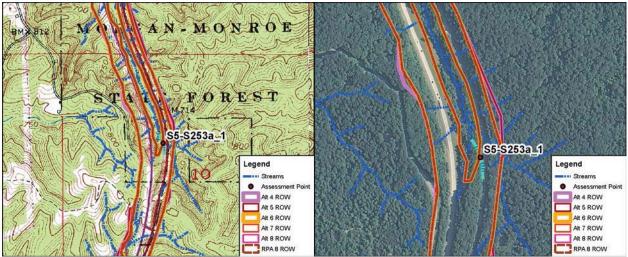
HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S253a DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. 39.31933 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 02/19/13 COMMENTS (Long: -86.51118) (Natural-Class I) DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions ☑ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 40% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 20% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 30% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 10% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 4 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 2.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Als	S5-S253a so be Completed):
QHEI PERFORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Bryant Creek	_ Distance from Evaluated Stream
CWH Name: _	_ Distance from Evaluated Stream _
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Tow	nship / City: Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_	02/18/13 Quantity: 0.10
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 10	9%
Were samples collected for water chemistry? (Y/N): (Note I	ab sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If no	ot, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· , — · · · · · · · · · · · · · · · · ·	ner collections optional. NOTE: all voucher samples must be labeled with the site
	ata sheets from the Primary Headwater Habitat Assessment Manual)
	Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:	, N
DRAWING AND NARRATIVE DESCRIPTION	N OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest t	or site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S253a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: Yes/Concrete Gutter Stream Type: **Ephemeral**

Evaluation Type: HHEI **Evaluation Score:** 12

Legal Drain (Y/N): Ν

UTME: 1778783 ft **UTMN**: 14279171 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Artificial

Stream S5-S253a_1 – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	437	0.02	0.71		
5	437	0.02	0.71		
6	437	0.02	0.71		
7	437	0.02	0.71		
8	437	0.02	0.71		
RPA 8	437	0.02	0.71		

Description of Potential Impact:

Impacts to S5-S253a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The concrete gutter is located inside the bifurcated median of SR 37. There is a narrow riparian buffer associated with this artificial channel along its right bank and a wide buffer along the left. The right floodplain consists of INDOT ROW while the left floodplain area consists of mature forest where these Alternatives cross this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253a 1 are on the second page of this form.



Photograph Taken Upstream

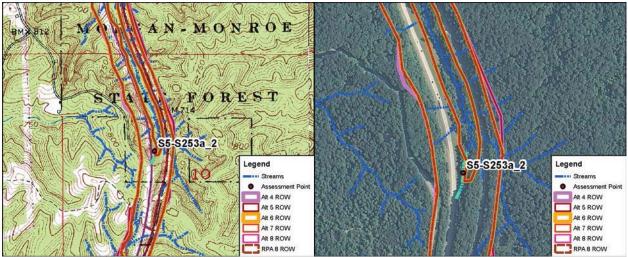


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253a_1 RIVER BASIN White River DRAINAGE AREA (mi²)).01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31908 LONG. RIVER CODE RIVER MILE	
DATE 05/22/12 SCORER JDP COMMENTS (Long: -86.51075) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ ☐ 0%	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ MUCK [0 pts] ☐ 100% ☐	7
Table (Personal and a Carlotte)	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] ✓ NO WATER OR MOIST CHANNEL [0 pts] 	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	1
0.111.0.1110.01	
COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.64	5
	5
AVERAGE BANKFULL WIDTH (meters): O.64 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\text{NOTE}\$: River Left (L) and Right (R) as looking downstream \$\text{ANOTE}\$	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m ✓ Mature Forest, Wetland ☐ Conservation Tillage ☐ Moderate 5-10m ☐ Immature Forest, Shrub or Old ☐ Urban or Industrial Field ☐ Open Pasture Row Co	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Urban or Industrial	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Mining or Construction Check ONLY one box): Stream Flowing Moderate 5-10m Moderate 5-10m Residential, Park, New Field Moderate 5-10m Moderate 5-10m Conservation Tillage Urban or Industrial Open Pasture, Row Cr	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Wide > 10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream looking l	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Immature Forest, Wetland Wide >10m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel)	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 Completed River Left (L) and Right (R) as looking downstream An	rop t)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: Epitemeral HHEI
Evaluation Score: 12

Legal Drain (Y/N): N

UTME: 1778603 ft **UTMN**: 14279010 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
\A/-4	0.04

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S253a_2 – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	516	0.02	1.58		
5	516	0.02	1.58		
6	516	0.02	1.58		
7	516	0.02	1.58		
8	516	0.02	1.58		
RPA 8	516	0.02	1.58		

Description of Potential Impact:

Impacts to S5-S253a_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The concrete gutter is located inside the bifurcated median of SR 37. There is a narrow riparian buffer associated with this artificial channel along its right bank and a wide buffer along the left. The right floodplain consists of INDOT ROW while the left floodplain area consists of mature forest where these Alternatives cross this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253a_2 are on the second page of this form.



Photograph Taken Upstream

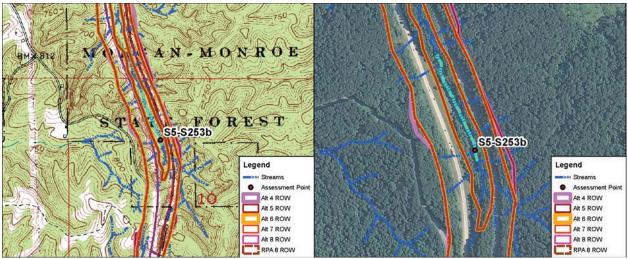


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253a_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31908 LONG. RIVER CODE RIVER MILE	
DATE 05/22/12 SCORER JDP COMMENTS (Long: -86.51075) (Concrete Gutter-Modified Classification)	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt] BEDROCK [16 pt] O% FINE DETRITUS [3 pts] O%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] 0% MUCK [0 pts] 0% 100% 100%	7
Total of Percentages of Occor (A) Substrate Percentage (B)	A . D
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW 2.170.2 AVERAGE BANKFULL WIDTH (meters): 0.64	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	
Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row C	rop
None Fenced Pasture Mining or Construction	1
COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten	† \
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	t)
Stream Flowing Moist Channel, isolated pools, no flow (Intermitten	t)
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box):	t)
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	t)
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	1
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 0.5 3.0 >3	1





Site Location on Washington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Creek

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI
Evaluation Score: 63.5

Legal Drain (Y/N): N

UTME: 1778597 ft **UTMN**: 14279750 ft

USGS Quadrangle: Washington

Section: 10
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 13.0 feet
OHWM Depth: 2.5 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes

Watershed Area: 0.14 sq mi

Predominant Sub: Bedrock/boulder slabs

Stream S5-S253b – Class III PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	1223	0.36	4.70		
5	1223	0.36	4.70		
6	1223	0.36	4.70		
7	1223	0.36	4.70		
8	1223	0.36	4.70		
RPA 8	1223	0.36	4.70		

Description of Potential Impact:

Impacts to S5-S253b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is located inside the bifurcated median of SR 37 and its substrate consists predominantly of bedrock and boulder slabs. There is a wide riparian buffer associated with this stream. The adjacent floodplain consist of mature forest. Photographs taken upstream and downstream are on the second page of this form.



Photograph Taken Upstream



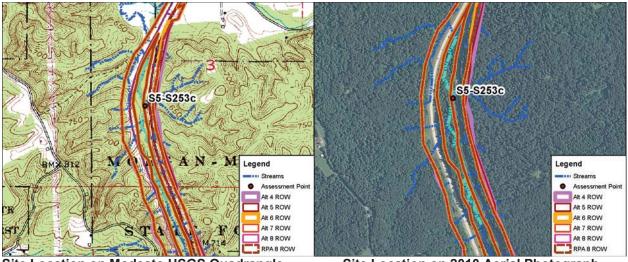
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253b RIVER BASIN White River DRAINAGE AREA (mi²)	.14
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32092 LONG. RIVER CODE RIVER MILE	
DATE 05/08/06 SCORER A Rogers COMMENTS (Long: -86.51146) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ ✓ BLDR SLABS [16 pts] 35% SILT [3 pt] 0%	Points
■ BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% ■ BEDROCK [16 pt] 50% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts]	35
SAND (<2 mm) [6 pts]	
Total of Percentages of 85.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 32 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters): 39	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Dankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 3.99	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY PLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY □ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH □ RI	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10m Moderate 5-10m Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermittent)	Width Max=30 25
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PROPERTY RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30 25
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moderate (Per Bank) None (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moderate (Per Bank) None (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral))	Width Max=30 25
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ WOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH (MOTE Left (L) and Right	Width Max=30 25
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 3.99 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 25
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 25

ADDITIONAL STREA	M INFORMATION	(This Information	Must Also be Cor	npleted):		55	-S253D
QHEI PERI	FORMED? - Yes	s No QHEI So	ore(If Yes, Attac	h Completed QHEI	Form)	
WWH Name: Br	REAM DESIGNATED	D USE(S)			Distance from Eva		
CWH Name:				-	Distance from Eval		
EWH Name:					Distance from Eval	uated Stream _	
MAPPING:	ATTACH COPIES O	F MAPS, INCLUDIN	IG THE ENTIRE W	ATERSHED A	AREA. CLEARLY M	ARK THE SITE LOCATI	ON
USGS Quadrangle N	ame: Modesto		NRCS	Soil Map Pa	ge:NRCS	Soil Map Stream Order	
County: Monroe			Township / Cit	y: Washing	gton		
MISCELLA	NEOUS						
Base Flow Conditions	s? (Y/N):_ Y	Date of last precipita	ation:_ 05/04	/06	Quantity: 0	.01	
Photograph Informati	on:						
Elevated Turbidity? (Y/N): N	Canopy (% open):	15%				
Were samples collec-	ted for water chemis	stry? (Y/N): N	_ (Note lab sample	no. or id. ar	nd attach results) La	b Number:	
		Dissolved Oxygen (r	ng/l)p	H (S.U.)	Conductivity	(µmhos/cm)	
Is the sampling reach	representative of th	ne stream (Y/N)	If not, please	explain:			
Additional comments	/description of pollut	ion impacts:					
BIOTIC EV	/ALUATION						-
Performed? (Y/N):				•		amples must be labeled at Assessment Manual)	with the site
Fish Observed? (Y/N		(Y/N) N Salan	nanders Observed	? (Y/N) N	Voucher? (Y/N)	<u> </u>	1
Frogs or Tadpoles Ol	oserved? (Y/N)	Voucher? (Y/N)	Aquatic Macro	oinvertebrate	s Observed? (Y/N)	Voucher? (Y/N)	
Comments Regarding	g Biology:						
1							
DRAW	ING AND NARE	RATIVE DESCR	IPTION OF ST	REAM RE	ACH (This mu	st be completed):	
						tion of the stream's lo	
morado import	ant fairamarko arra			araation and	a nanaavo acconp		oution
4	See Stream	m Nagoggma	nt Form				
FLOW -	S5-S253b			c man			
	aerial pho			_	otographs		
	actiat bu	cccarabii,	~114 I CDOU	TOC PII	.ccgrapiis		





Site Location on 2010 Aerial Photograph

Modesto

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI
Evaluation Score: 80

Evaluation Score: 80 Legal Drain (Y/N): N

UTME: 1777766 ft **UTMN**: 14282715 ft

Section:	3
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	13.0 feet
OHWM Depth:	2.5 feet
USCOE Jurisdiction:	Yes

USGS Quadrangle:

IDEM Jurisdiction: Yes **Watershed Area:** 0.48 sq mi **Predominant Sub:** Bedrock

Stream S5-S253c – Class III PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	3432	1.02	12.59	
5	3432	1.02	12.59	
6	3432	1.02	12.59	
7	3432	1.02	12.59	
8	3432	1.02	12.59	
RPA 8	3432	1.02	12.59	

Description of Potential Impact:

Impacts to S5-S253c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is located inside the bifurcated median of SR 37 and its substrate consists predominantly of bedrock, boulder slabs, and gravel. There is a wide riparian buffer associated with this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253c are on the second page of this form.



Photograph Taken Upstream



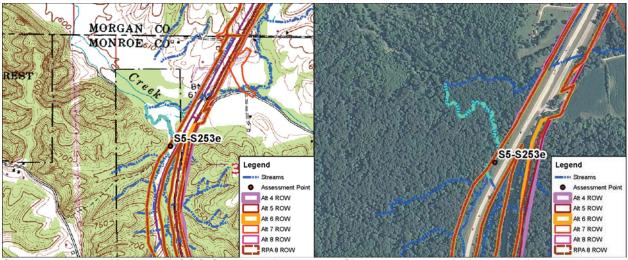
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5			
SITE NUMBER S5-S253c RIVER BASIN White River DRAINAGE AREA (mi²)	0.48		
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32883 LONG. RIVER CODE RIVER MILE			
DATE 05/08/06 SCORER A Rogers COMMENTS (Long: -86.51428) (Natural-Class III)			
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams of the Complete All Items On This Form - Refer to This Form - Refer	tructions		
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RIMODIFICATIONS:	ECOVERY		
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes			
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric		
□	Points		
■ BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% ■ BEDROCK [16 pt] 50% FINE DETRITUS [3 pts] 0%	Substrate		
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40		
GRAVEL (2-64 mm) [9 pts]	35		
SAND (<2 mm) [6 pts]			
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 85.00% (A) Substrate Percentage Check (B)	A + B		
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 32 TOTAL NUMBER OF SUBSTRATE TYPES: 3			
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth		
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30		
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]			
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	20		
COMMENTS MAXIMUM POOL DEPTH (centimeters): 39			
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankfull			
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width		
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30		
COMMENTS OHW 13'/2.5' AVERAGE BANKFULL WIDTH (meters): 3.99	25		
This information must also be completed			
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY			
L R (Per Bank) L R (Most Predominant per Bank) L R			
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old			
Field Field	2		
Narrow <5m Residential, Park, New Field Open Pasture, Row	гор		
None Fenced Pasture Mining or Construction	n		
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee)	nt)		
Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)			
COMMENTS_			
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0			
0.5 1.5 2.5 >3			
_ STREAM GRADIENT ESTIMATE			
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)			

ADDITIONAL STREAM	INFORMATION (This Information Must Also be Completed):
QHEI PERFO	PRMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
WWH Name: Brya	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
USGS Quadrangle Nar	TTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION 10: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
Manros	Washington
County.	Township / Oity.
MISCELLAN Base Flow Conditions?	
Photograph Information	:
Elevated Turbidity? (Y/	
Were samples collected	d for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Ter	np (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (μmhos/cm)
Additional comments/d	epresentative of the stream (Y/N) Y If not, please explain:
BIOTIC EVA Performed? (Y/N): N	LUATION (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Frogs or Tadpoles Obs	Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (
Comments Regarding I	Biology:
	· · · · · · · · · · · · · · · · · · ·
DRAWIN	IG AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include importar	at landmarks and other features of interest for site evaluation and a narrative description of the stream's location
FLOW -	ee Stream Assessment Form
	5-S253c for site topographic map,
a	erial photograph, and resource photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:NWTownship:T10NRange:R1WIDEM 303(d) List:N/A

Watershed:05120201180OHWM Width:15.0 feetChannelized:NoOHWM Depth:1.7 feetStream Type:IntermittentUSCOE Jurisdiction:Yes

Evaluation Type:QHEIIDEM Jurisdiction:YesEvaluation Score:55.5Watershed Area:0.71 sq miLegal Drain (Y/N):NPredominant Sub:Gravel/sand

UTME: 1777761 ft **UTMN**: 14284030 ft

Stream S5-S253e – Warm Water Habitat				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	368	0.13	0.67	
5	363	0.13	0.65	
6	363	0.13	0.65	
7	363	0.13	0.65	
8	363	0.13	0.65	
RPA 8	363	0.13	0.65	

Description of Potential Impact:

Impacts to S5-S253e at for Alternatives 4, 5, 6, 7, 8, and RPA 8 are listed in the table above. At the time of the evaluation, this stream is an intermittent stream with fair to good habitat development and high sinuosity where these Alternatives cross this stream. The predominant substrate consists of gravel and sand. The stream has a wide riparian corridor associated with its left bank and a narrow riparian buffer along its right bank. The adjacent floodplain is dominated by forest land on the left and transportation (SR 37) on the right. Photographs taken upstream and downstream at the S5-S253e are on the second page of this form. All of the Alternatives possess the same length and area of impacts to the unnamed tributary to Bryant Creek at this location.



Photograph Taken Upstream



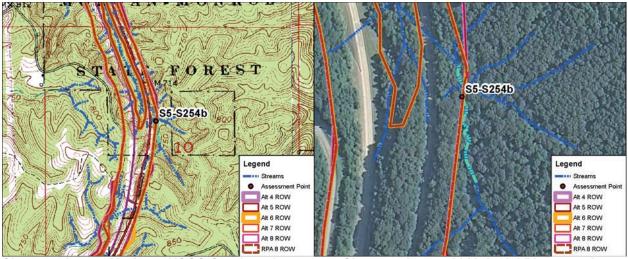
Photograph Taken Downstream

OWQ Biological Studies QHEI (Qualitative Habitat Evaluation Index)

Sample #	bioSample #	Stream Name	100	Location	
52532	manuse:		No Wahitat	West SEZZ	
Surveyor Sample Date	County	Macro Sample Type	K Habitat Complete	QHEI Score:	55.5
115 01 V 7/16/12	Matary & 12 E		complete	Sime acole:	=
BEST TYPES RESEM: TOTAL TO RESEM: TOTAL TOT	PREDOMENTAL P P R HARDPAN [4] SELT [2] SLT [2]	PR TYPES OR PR TUME: PR TUME: PR TUME: TUME: PR TUME: WETL HARD SAND (0)	Check ONE (I IGIN STONE [1] [1] ANIDS [0] PAN [0] STONE [0] VAP [0] STRINE [0] E[-1] FINES [-2] ery small amount (; 3-Highest diameter log ools.)	OF 2 & average) QUALITY S HEAVY [-2] MODERATE [-1] NORMAL [0] FREE [1] EXTENSIVE [-2] MODERATE [-1] NONE [1] S OF If more common of many common common of many common c	Substrate Substrate Maximum 20 arginal fraverage) 5% [11] 75% [7]
UNDERCUT BANKS[1] UNDERCUT BANKS[1] UNDERCUT BANKS[1] UNDERCUT BANKS[1] SHALLOWS (IN SLOW WATER)[1] ROOTMATS[1] Comments Comments	1 Z ROOTWA 1 D BOULDE	NDS[1] AQUATICI RS[1] LOGSOR	BACKWATERS [: MACROPHYTES MOODY DEBRIS	[1] NEARLY ABSENT Cov Maximu	r < 5%[1
SINUOSITY DEVELO HIGH [4]	PMENT C ENT[7] [5] 22	HANNELIZATION NONE[6] RECOVERED[4]	☐ MOE	H[3] DERATE[2] Chan [1] Maxim	
Comments	TAN TONE	AND THE RESERVE TO THE PARTY OF	Lot State of	and the second second	
L R EROSION	ARIAN WIDTH >50m[4] RATE 10-50m[3] OW5-10m[2] NARROW[1] [0]	RONE IN Each category for EA R FLOOD PLAIN QU FOREST, SWAMP [3] SHRUB OR OLD FIELD RESIDENTIAL, PARK, N FENCED PASTURE [1] OPEN PASTURE, ROWN	ALITY [2] [EW FIELD[1] Indica	CONSERVATION TO URBAN OR INDUST MINUNG / CONSTRICT MINUNG / CONSTRICT MINUNG / CONSTRICT MANAGEMENT (MAXITIC MAXITIC M	RIAL[0] ACTION[0] an
Check ONE (ONLY!) Check ONE > Im[6] POOL WI 0.7-< Im[4] POOL WI 0.4-< 0.7m[2] POOL WI 0.2-< 0.4m[1] Comments Indicate for functional diffles; Best area of diffle-obligate species: RIFFLE DEPTH RUN D BESTAREAS > 10cm[2] MAXOLI	NEL WIDTH (Or 2 & average) DIH > REPFLE WEDT DIH = REFFLE WEDT DIH < REFFLE WEDT S must be large enough EPTH R MUM > 50cm [2]	H[1] VERY FAST [1] H[0] FAST [1] Indicate gh to support a population heck ONE (Or 2 & average) IFFLE/RUN SUBSTRAT STABLE (e.g., Cobbie, Bould MOD. STABLE (e.g., Fine Grave)	TE RIFFL [7] SLOW[1]	TENT [-2] Poor [Curre S and riffies. Maximum NORIFFLE [mel E/RUN EMBEDDED NONE [2] LOW [1] Riffl MODERATE [0] R. EXTENSIVE [-1] Maximum EXTENSIVE [-1]	ment on tad orlact yContact ol/ ont in 17 Since 0] NESS
DRAINAGE AREA (C. T(), mi²)	MODERATE (6	- 10]	(S) %RII	Maximu	

☐ Fabe bank ☐ Manure ☐ Layoon BMPs | Construction | Sediment ☐ Logging ☐ Intigation ☐ Cooling □Wesh H₂O□ Tile□H₂OTable Flow: | Netural | Sagnan ☐ Hardened ☐ Dirt & Grims Broker | Bark | Surface □ WWITE □ CSO □ NEDGS ○Wettand □ Rark □ Golf Contaminated | Landill Atmospheric deposition Mine | Act | Querry □ Inclustry □ Urban □ Lawn □ Home E-1SSUES OWQ Biological Studies QHEI (Qualitative Habitat Evaluation Index) Leavest | One sicked | Both banks Stag: | Removed | Madified Sproy | Estands | Scowed Seminar | Young | Old Bedicact | Moving | Stable ○ Impounded ○ Destorated □ Pood control □ Drainage D-MAINTENANCE Amount Sums □ Perforceter(□ Outoffs □ Active □ Historic Public | Princip Poot | > 100 R | > 3 R F C-RECREATION day w Loding galeem (> 10m, 3 readings < 10m, 1 reading hmidde); Round other navest whole persent 104 August ☐ Sturtye deposits ☐ CSOs/SSOs/Outfalls | Mulsance algae | Olistean | Disable macrophytas | Tresh/Litler | Bross buhidity | Nulsance odm | Disable deposit | Sautye deposit | Frank/Soun | Sautye deposit | □ Nuksmæoda \$0.4° B-AESTHETICS 8 Metho % OF COMMENT □ < 10% - Cosed □ >85% - Open %55>-%0E □ 0.10% -< 30% N 19% - < 19% A-CANOPY 11 Sport

Stream Drawing:



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI
Evaluation Score: 41

Evaluation Score: 41
Legal Drain (Y/N): N

UTME: 1778989 ft **UTMN**: 14279076 ft

USGS Quadrangle:	Modesto
Section:	3
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	4.5 feet
OHWM Depth:	0.8 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes

Watershed Area: 0.09 sq mi Predominant Sub: Cobble/gravel

Stream S5-S254b – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	155	0.02	1.06	
5	165	0.02	1.09	
6	165	0.02	1.08	
7	165	0.02	1.09	
8	165	0.02	1.09	
RPA 8	165	0.02	1.09	

Description of Potential Impact:

Impacts to S5-S254b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of coble, gravel, and boulder slabs. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S254b are on the second page of this form.



Photograph Taken Upstream



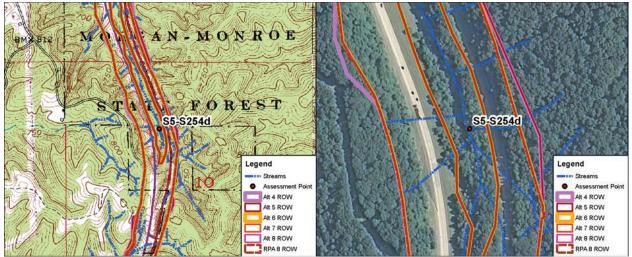
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S254b RIVER BASIN White River DRAINAGE AREA (mi²) 0	.09
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31882 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51002) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 20% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D'' LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrate
☐ COBBLE (65-256 mm) [12 pts] ☐ CLAY or HARDPAN [0 pt] ☐ 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 25% MUCK [0 pts] 0%	26
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 60.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ✓ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ✓ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ✓ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.40 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5-10m Moderate 5-10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.40 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] 1.40 L R (Most Predominant per Bank) Vide >10 m (Vide >10 m (Vide >10 m) (Vide >1	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ↓ R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4" 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ↓ R (Per Bank)	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_Y Date of last precipitation:10/13/11 Quantity:0.25
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 0%
Were samples collected for water chemistry? (Y/N): Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts: BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S254b for site topographic map, aerial photograph, and resource photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural Stream Type: Intermittent **Evaluation Type:** HHEI

Evaluation Score: 20 Legal Drain (Y/N): Ν

UTMN: 14279638 ft **UTME**: 1778632 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.3 feet
OHWM Depth:	0.3 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Predominant Sub: Silt/gravel

Stream S5-S254d – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	22	0.01	0.01	
5	22	0.01	0.01	
6	22	0.01	0.01	
7	22	0.01	0.01	
8	22	0.01	0.01	
RPA 8	22	0.01	0.01	

Description of Potential Impact:

Impacts to S5-S254d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S254d are on the second page of this form.



Photograph Taken Upstream



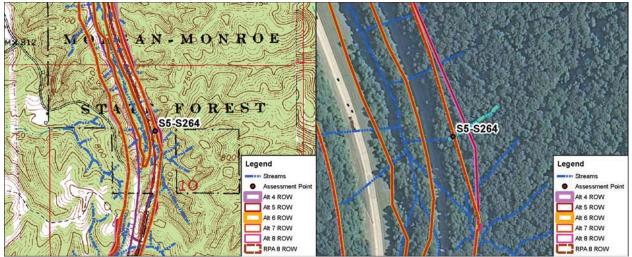
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S254d RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 22 LAT. 39.32036 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.51127) (Natural-Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
BLDR SLABS [16 pts] 0% SILT [3 pt] 70%	Points
BOULDER (>256 mm) [16 pts]	Substrat
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	15
Ortho (12 mm) [0 pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m (-3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PROPERTY OF Bank) L R (Per Bank) V Wide > 10m Moderate 5-10m Norte: River Left (L) and Right (R) as looking downstream to Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5-10m Moderate 5-10m PLOODPLAIN QUALITY Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5-10m Moderate 5-10m PLOODPLAIN QUALITY Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): 0.61 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Residential, Park, New Field None COMMENTS Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) No water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):)4a
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream Distance from Evaluated Stream	-
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	1
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: Monroe Township / City: Washington	
MISCELLANEOUS	_
Base Flow Conditions? (Y/N): N Date of last precipitation: 06/30/12 Quantity: 0.01	
Photograph Information: 60 - Up, 61 - Down	
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	e site
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc	
Comments Regarding Biology:	
	_
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):	
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	
• Coo Ctroom Aggoggment Form	
See Stream Assessment Form S5-S254d for site topographic map,	
aerial photograph, and resource photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 21
Legal Drain (Y/N): N

UTME: 1778879 ft **UTMN**: 14279660 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.2 feet OHWM Depth: 1.1 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/leaf pack

Stream S5-S264 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	113	0.01	0.16	
5	115	0.01	0.17	
6	36	0.01	0.01	
7	36	0.01	0.01	
8	36	0.01	0.01	
RPA 8	36	0.01	0.01	

Description of Potential Impact:

Impacts to S5-S264 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S264 are on the second page of this form.



Photograph Taken Upstream

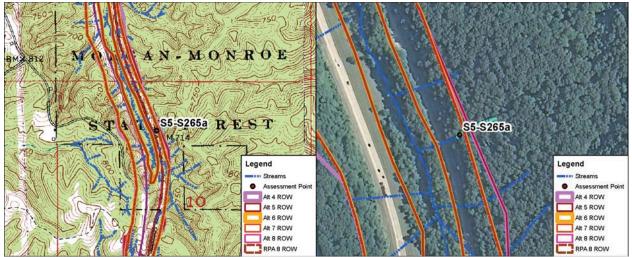


Photograph Taken Downstream



	THIEF SOCIE (sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S	S5-S264 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200	LAT. 39.32042 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers		
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	structions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RI	ECOVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
	ERCENT TYPE PERCENT	Metri Point
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	0% SILT [3 pt] 5% 0% LEAF PACK/WOODY DEBRIS [3 pts] 30%	1 01110
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0%	Substra
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	60% MUCK [0 pts] 0%	1 40
SAND (<2 mm) [6 pts]	5% ARTIFICIAL [3 pts] 0%	16
Total of Percentages of	Substrate Percentage (B)	
Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B)	A+B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the m.	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
• •	d culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	, O
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
2 DANK FILL MIDTH Maccound on the	(Check OW Verre have)	Bankfu
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		,
COMMENTS OHW - 2.2' / 1.1'	AVERAGE BANKFULL WIDTH (meters): 0.80	
	This information must also be completed	_
RIPARIAN ZONE AND FLOODP		
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Field Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row	Crop
None	Fenced Pasture Mining or Construction	nn.
COMMENTS	Torroca Fastaro Willing of Construction	
	de Carl ONLY and by	_
FLOW REGIME (At Time of Eval	aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermitte	int)
Subsurface flow with isolated poor	· · · · · · · · · · · · · · · · · · ·	
COMMENTS Leaves indicate	ted surface conveyance only	
SINIIOSITY (Number of bonds n	per 61 m (200 ft) of channel) (Check ONLY one box):	
None None	1.0 2.0 13.0	
0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) ✓ Moderate to Severe ☐ Severe (10	ft/100 ft)

ADDITIONAL STRE	EAM INFORMATION (This Information Must Also be Completed):		55-5265
QHEI PER	RFORMED? - Yes V No QHEI Score (If Yes, Att	tach Completed QHEI Forr	n)
	TREAM DESIGNATED USE(S)	_	
WWH Name: B	ryant Creek	Distance from Evaluate	ed Stream
CWH Name: _		Distance from Evaluate	ed Stream _
EWH Name:		Distance from Evaluate	ed Stream _
	G: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle I			Map Stream Order1
County: Monroe	Township / City: Wash	ington	
MISCELL Base Flow Condition		Quantity: 0.89	
Photograph Informa	ation: 95 Upstream / 96 Downstream / 97 Right Bank / 98 Left Bar	nk	
Elevated Turbidity?			
Were samples colle	ected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Nu	umber:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (μm	hos/cm)
Is the sampling read	ch representative of the stream (Y/N) If not, please explain:		
Additional comment	ts/description of pollution impacts:		
BIOTIC E	EVALUATION		
Performed? (Y/N): _	N (If Yes, Record all observations. Voucher collections options ID number. Include appropriate field data sheets from the P	·	
Fish Ohaania 42 (V/I	November 2 (V/N)	\/b\(\Omega(\V(\N)\)	
Fish Observed? (Y/I Frogs or Tadpoles 0		Voucher? (Y/N) ates Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding			
- Trogaran			
DRAV	WING AND NARRATIVE DESCRIPTION OF STREAM	RFACH (This must b	ne completed):
	ertant landmarks and other features of interest for site evaluation a	-	
include impo	itant fandmarks and other realties of interest for site evaluation a	ind a narrative description	for the stream's location
•	See Stream Assessment Form		
FLOW			
	S5-S264 for site topographic map,	_	
	aerial photograph, and resource pl	hotographs	



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 22

Legal Drain (Y/N): N

UTME: 1778754 ft **UTMN**: 14280009 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.9 feet OHWM Depth: 0.9 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/leaf pack

 Stream S5-S265a – Class I PHWH

 pact (feet)
 Area of Impact (acres)
 Riparian Impact (acres)

 1
 0.01
 0.42

 3
 0.01
 0.43

Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	91	0.01	0.42
5	93	0.01	0.43
6	57	0.01	0.26
7	57	0.01	0.26
8	57	0.01	0.26
RPA 8	57	0.01	0.26

Description of Potential Impact:

Impacts to S5-S265a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S265a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



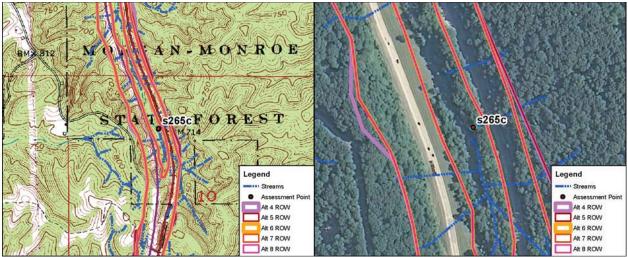
Primary Headwater Habitat Evaluation Form

22

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S265a DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. **39.32138** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long. -86.51084) (Natural-Class I) J Meeker SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 5% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 25% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 5% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 60% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 17 5% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 5.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 12 TOTAL NUMBER OF SUBSTRATE TYPES: 5 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 ephemeral reach COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.9' / 0.9' AVERAGE BANKFULL WIDTH (meters): 0.70 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 2.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREA	M INFORMATION (This Information Must Also	be Completed):		55-5265a
QHEI PERF	ORMED? - Yes V No QHEI Score	(If Yes, Atta	ch Completed QHEI Form	n)
DOWNSTR WWH Name: Bry CWH Name: _	EAM DESIGNATED USE(S) ant Creek		_ Distance from Evaluate _ Distance from Evaluate _ Distance from Evaluate	d Stream _
_	ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED	- AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map P	age: 3 NRCS Soil	Map Stream Order1
County: Monroe		ship / City: Washir	ngton	
MISCELLAI Base Flow Conditions		05/10/06	Quantity: 0.89	
	99 Upstream / 100 Downstream / 101 Rig	nt Bank / 102 Left B	Bank	
Elevated Turbidity? (Y	N A ST			
• ,	N	b sample no. or id. a	and attach results) Lab Nu	mber:
			Conductivity (µmh	
	representative of the stream (Y/N) Y If not description of pollution impacts:	, please explain:		
Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Ob Comments Regarding	(If Yes, Record all observations. Voucher ID number. Include appropriate field dat Voucher? (Y/N) Salamanders C served? (Y/N) Voucher? (Y/N) Aqua Biology:	a sheets from the Prii	wary Headwater Habitat As Voucher? (Y/N) es Observed? (Y/N)	voucher? (Y/N)
	ING AND NARRATIVE DESCRIPTION ant landmarks and other features of interest fo	r site evaluation an	· · · · · ·	
FLOW -	S5-S265a for site topog	raphic map		
	aerial photograph, and	resource b	mocograpiis	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 30

Legal Drain (Y/N): N

UTME: 1778566 ft **UTMN**: 14279936 ft

USGS Quadrangle: Section:	Modesto 10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.5 feet
OHWM Depth:	0.7 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: 0.01 sq mi Silt/gravel

Stream S5-S265c – Modified Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	36	0.01	0.00	
5	36	0.01	0.00	
6	36	0.01	0.00	
7	36	0.01	0.00	
8	36	0.01	0.00	
RPA 8	36	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S265c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S265c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



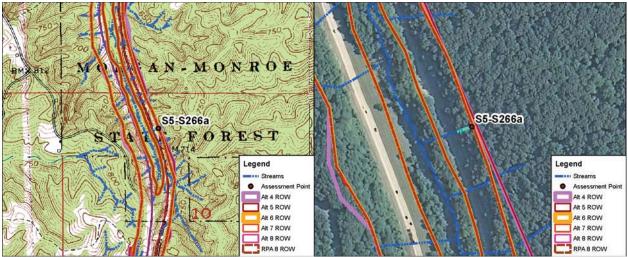
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S265c RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 36 LAT. 39.32118 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.51150) (Modified Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 60%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] O% FINE DETRITUS [3 pts] O%	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] 10% MUCK [0 pts] 0% ARTIFICIAL [3 pts]	15
Critical Control (2 mining to pict)	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 30
> 22.5 - 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	I
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Moderate 5-10m Moderate 5-10m Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30 15
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.10 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 15
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the completed in the complete in the c	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.10 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Narrow <5 m Residential, Park, New Field None COMMENTS Fenced Pasture Fenced Pasture Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 15

ADDITIONAL STREAM INFORMATION (This Information Must Also	S5-S265c be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Bryant Creek	Distance from Evaluated Stream
CWH Name: _	_ Distance from Evaluated Stream _
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EN	TIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Towns	nip / City: Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):N Date of last precipitation:	06/30/12 Quantity: 0.01
Photograph Information: 58 - Up, 59 - Down	
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): N (Note lab	sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	
Is the sampling reach representative of the stream (Y/N) If not,	please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher	collections optional. NOTE: all voucher samples must be labeled with the site
	sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Of	oserved? (Y/N) N Voucher? (Y/N) N N
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquati	c Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	N
DRAWING AND NARRATIVE DESCRIPTION	OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for	site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S265c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 21

Evaluation Score: 21 Legal Drain (Y/N): N

UTME: 1778673 ft **UTMN**: 14280295 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.7 feet OHWM Depth: 1.3 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi Gravel/leaf pack **Predominant Sub:**

Stream S5-S266a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	108	0.01	0.49	
5	110	0.01	0.50	
6	92	0.01	0.42	
7	92	0.01	0.42	
8	92	0.01	0.42	
RPA 8	92	0.01	0.42	

Description of Potential Impact:

Impacts to S5-S266a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S266a are on the second page of this form.



Photograph Taken Upstream



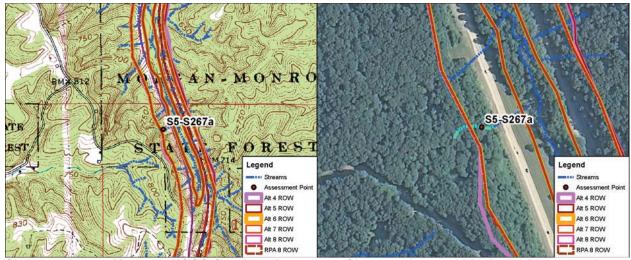
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S266a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 164 LAT. 39.32217 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51112) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
GRAVEL (2-64 mm) [9 pts] 55% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 5% ARTIFICIAL [3 pts] 0%	16
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
Personner	
 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): 	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' AVERAGE BANKFULL WIDTH (meters): 0.82	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### D.82 ### AVERAGE BANKFULL WIDTH (meters): ### D.82 ### AVERAGE BANKFULL WIDTH (meters): ### D.82 ### D.82 ### D.82 ### D.82 ### D.82 ### D.82 ### D.83 ### D.83 ### D.83 ### D.84 ### D.85 ### D	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] Visual Substitution 15 pts	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Ri	Width Max=30
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> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10 m Narrow <5 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Other At '8" [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] AVERAGE BANKFULL WIDTH (meters): 0.82 AVERAGE BANKFULL WIDTH (a	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and	Width Max=30

ADDITIONAL STREAM IN	IFORMATION (This Information Must Also	be Completed):		55-5266a
QHEI PERFOR	MED? - Yes ✓ No QHEI Score	(If Yes, Attach	Completed QHEI Form)	
DOWNSTREAM WWH Name: Bryant CWH Name: _	I DESIGNATED USE(S) Creek		Distance from Evaluated S Distance from Evaluated S Distance from Evaluated S	Stream _
MAPPING: ATT	ACH COPIES OF MAPS, INCLUDING THE <u>E</u>	NTIRE WATERSHED A	REA. CLEARLY MARK T	HE SITE LOCATION
USGS Quadrangle Name:	Modesto	NRCS Soil Map Pag	e: 3 NRCS Soil Ma	ap Stream Order1
County: Monroe	Towns	ship / City: Washingt	ton	
MISCELLANEO Base Flow Conditions? (Y	(N):_Y Date of last precipitation:_	05/10/06	Quantity: 0.89]
Photograph Information:	103 Upstream / 104 Downstream / 105 Rig	ht Bank / 106 Left Ba	ank	
Elevated Turbidity? (Y/N):	N Canopy (% open): 20%	%		
Were samples collected for	or water chemistry? (Y/N): N (Note lal	o sample no. or id. and	d attach results) Lab Numl	ber:
Field Measures: Temp	(°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos	s/cm)
	esentative of the stream (Y/N) Y If not,	please explain:		
BIOTIC EVALUE Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Observed	(If Yes, Record all observations. Vouche ID number. Include appropriate field data Voucher? (Y/N) Salamanders C	'	ry Headwater Habitat Asse Voucher? (Y/N)	
Comments Regarding Biol	ogy:			
	AND NARRATIVE DESCRIPTION andmarks and other features of interest fo		· —	
FLOW S	ee Stream Assessment F 5-S266a for site topog erial photograph, and	raphic map,	otographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 35

Evaluation Score: 35 Legal Drain (Y/N): N

UTME: 1777939 ft **UTMN**: 14280504 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.1 feet OHWM Depth: 1.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S267a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	127	0.01	0.58	
5	125	0.01	0.57	
6	125	0.01	0.57	
7	125	0.01	0.57	
8	125	0.01	0.57	
RPA 8	125	0.01	0.57	

Description of Potential Impact:

Impacts to S5-S267a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S267a are on the second page of this form.



Photograph Taken Upstream



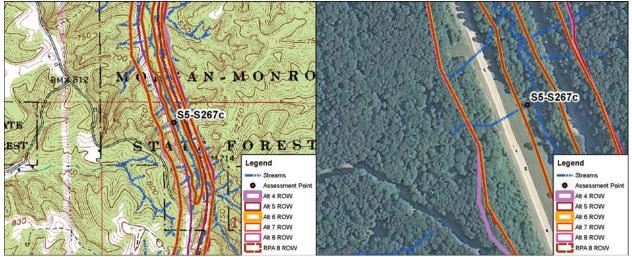
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S267a RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01			
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32275 LONG. RIVER CODE RIVER MILE				
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51371) (Natural-Class I)				
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions			
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY			
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI			
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric			
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points			
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] ULEAF PACK/WOODY DEBRIS [3 pts] 10% 0% FINE DETRITUS [3 pts]	Substrate			
COBBLE (65-256 mm) [12 pts]	Max = 40			
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	20			
Total of Percentages of Annual (A) Substrate Percentage (B)	A + B			
Bldr Slabs, Boulder, Cobble, Bedrock	ATB			
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15				
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30			
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]				
> 22.5 - 30 cm [30 pts]	0			
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0				
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankfull				
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width			
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30			
COMMENTS OHW - 2.1' / 1.2' AVERAGE BANKFULL WIDTH (meters): 1.20	15			
This information must also be completed	10			
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	10			
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	10			
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m ✓ Mature Forest, Wetland Conservation Tillage	10			
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m Moderate 5-10m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field				
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Der Bank) Mature Forest, Wetland D Urban or Industrial Open Pasture, Row Creen				
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RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing NOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left (op -			
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None None COMMENTS Fenced Pasture Fenced Pasture Flow Regime (At Time of Evaluation) RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank)	op -			
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS Fenced Pasture Flow REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A Note: A RIPARIAN WIDTH Narrow Solution Open Pasture, Row Cro None Open Pasture, Row Cro None Open Pasture, Row Cro None None None None Open Pasture, Row Cro None None Open Pasture, Row Cro None	op -			
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) and Right (R) as looking downstream And Right (R) as	op -			
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Residentian Porest, Shrub or Old Field Open Pasture, Row Crown Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 2.5 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	op -			
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None Comments Fenced Pasture Comments Flow REGIME (At Time of Evaluation) Comments Sinuosity (Number of bends per 61 m (200 ft) of channel) None Sinuosity (Number of bends per 61 m (200 ft) of channel) None Residential (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream Another Left (L) and Right (R) as looking to the left (L) and Right (R) as looking to the left (L) and Right (R) as looking to the left (L) and Right (R)	op -			

ADDITIONAL STREAM INFORMATION (This Information Must Also be Complete	S5-S267a ed):	
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes		
DOWNSTREAM DESIGNATED USE(S)	,	
WWH Name: Bryant Creek	Distance from Evaluated Stream	
CWH Name: _	Distance from Evaluated Stream	
EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATER	SHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto NRCS Soil N	Map Page: 3 NRCS Soil Map Stream Order 1	
County: Monroe Township / City: W	ashington	
MISCELLANEOUS		
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 05/10/06	Quantity: 0.89	
Photograph Information: 185 Upstream / 186 Downstream / 187 Right Bank / 188	Left Bank	
Elevated Turbidity? (Y/N): N Canopy (% open): 30%		
Were samples collected for water chemistry? (Y/N): _N (Note lab sample no. o	or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U	J.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain	n:	
Additional comments/description of pollution impacts:		
DIOTIO TIMILITONI		
ID number. Include appropriate field data sheets from the Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N)		
DRAWING AND NARRATIVE DESCRIPTION OF STREA	M DEACH /This must be completed).	
	·	
Include important landmarks and other features of interest for site evaluation	on and a narrative description of the stream's location	
See Stream Assessment Form		
FLOW	ian.	
S5-S267a for site topographic m	-	
aerial photograph, and resource	photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: USGS Quadrangle: Modesto Stream Stream Name: Unnamed Trib. Bryant Ck Section: Quarter: NWTownship: T10N R₁W IDEM 303(d) List: N/A Range: Watershed: 05120201180 **OHWM Width:** 1.1 feet Channelized/Type: 0.3 feet No/Natural OHWM Depth: **Stream Type:** USCOE Jurisdiction: Yes **Ephemeral Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 20 Watershed Area: 0.01 sq mi Legal Drain (Y/N): Ν **Predominant Sub:** Gravel/silt

UTME: 1778181 ft **UTMN**: 14280610 ft

Stream S5-S267c – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	13	0.01	0.01		
5	13	0.01	0.01		
6	13	0.01	0.01		
7	13	0.01	0.01		
8	13	0.01	0.01		
RPA	13	0.01	0.01		

Description of Potential Impact:

Impacts to S5-S267c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and silt. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S267c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



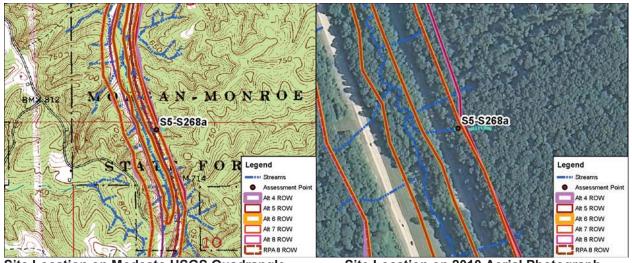
SITE NAME/LOCATION I-69 Section 5				
SITE NUMBER S5-S267c RIVER BASIN White River DRAINAGE AREA (mi²)	.01			
LENGTH OF STREAM REACH (ft) 13 LAT. 39.32321 LONG. RIVER CODE RIVER MILE				
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51284) (Natural-Modified Class I)				
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions			
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY			
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI			
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric			
BLDR SLABS [16 pts]	Points			
BEDROCK [16 pt]	Substrate			
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 40			
✓ □ GRAVEL (2-64 mm) [9 pts] ☐ □ MUCK [0 pts] 0% □ SAND (<2 mm) [6 pts]	15			
Title (D) (A) Substitute Remarks a				
Bldr Slabs, Boulder, Cobble, Bedrock	A + B			
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3				
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depti			
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30			
> 22.5 - 30 cm [30 pts]	0			
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0				
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width			
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Max=30			
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]				
COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.34	5			
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆				
RIPARIAN WIDTH FLOODPLAIN QUALITY				
L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage				
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial				
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	р			
None Fenced Pasture Mining or Construction				
COMMENTS				
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):				
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	1			
COMMENTS_	-			
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):				
None 1.0 2.0 3.0 3.0 5 1.5 2.5 5 3				
CTDEAM CDADIENT FORIMATE				
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)			

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) / WWH Name: Bryant Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 05/10/06 Quantity: 0.89
Photograph Information: 185 Upstream / 186 Downstream / 187 Right Bank / 188 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 30% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm) Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Vouch
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

FLOW

S5-S267c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI 28

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1778412 ft **UTMN:** 14280875 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.0 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.02 sq mi
	• 1/ 1

Predominant Sub: Gravel/clay

Stream S5-S268a – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	62	0.01	0.29		
5	65	0.01	0.30		
6	45	0.01	0.21		
7	45	0.01	0.21		
8	45	0.01	0.21		
RPA 8	45	0.01	0.21		

Description of Potential Impact:

Impacts to S5-S268a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S268a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

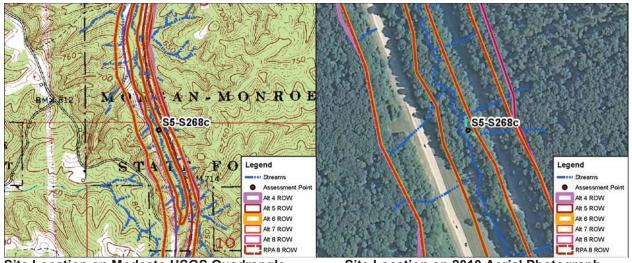


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5		<u> </u>		
SITE NUMBER S5	-S268a RIVER E	ASIN White River	DRAINAGE	AREA (mi²) 0.02
	AT. 39.32376 LC	NGRIVE	R CODEI	RIVER MILE
DATE 05/10/06 SCORER J Meeker	COMMENTS (Long: -86.51203) (N	atural-Class I)	
NOTE: Complete All Items On This Form	- Refer to "Field Ev	aluation Manual for C	Ohio's PHWH Stream	ms" for Instructions
STREAM CHANNEL NONE / NATU MODIFICATIONS:	JRAL CHANNEL	RECOVERED RECO	OVERING RECEN	T OR NO RECOVERY
SUBSTRATE (Estimate percent of every	y type of substrate pre	esent. Check ONLY two p	redominant substrate	TYPE boxes
(Max of 32). Add total number of significa	• •	I (Max of 8). Final metrics		Motri
TYPE PE BLDR SLABS [16 pts]	RCENT TYPE	SILT [3 pt]		FCENT Points
	0%	LEAF PACK/WOODY		5% n% Substrat
	0%	FINE DETRITUS [3 pt CLAY or HARDPAN [0		0% Substrat Max = 4
COBBLE (00 200 mm) [12 pto]	60%	MUCK [0 pts]		0%
	0%	ARTIFICIAL [3 pts]		0% 13
Total of Percentages of 0.	00% ^(A)	Substrate Percentage Check 100	19/0	(B) A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBST	RATE TYPES: 9		OF SUBSTRATE TYP	PES: 4
. Maximum Pool Depth (Measure the ma	vimum pool depth wif	hin the 61 meter (200 ft)	evaluation reach at the	e time of Pool Dep
evaluation. Avoid plunge pools from road		pipes) (Check ONLY o	ne box):	Max = 3
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	-	> 5 cm - 10 cm [15 pt < 5 cm [5 pts]	s]	
> 10 - 22.5 cm [25 pts]	✓	NO WATER OR MOI	ST CHANNEL [0 pts]	0
COMMENTS ephemeral reach		MAXIMUM PO	OL DEPTH (centimete	ers): 0
BANK FULL WIDTH (Measured as the a	worses of 3.4 mossur	oments) (Check	ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts]	verage of 3-4 illeasur	> 1.0 m - 1.5 m (> 3' 3		Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	L	≤ 1.0 m (<=3' 3") [5 pt	s]	Max=30
COMMENTS OHW - 3.0' / 0.9'		AVERAGE BA	NKFULL WIDTH (met	ers): 1.20 15
			, , , , , , , , , , , , , , , , , , ,	
		on <u>must</u> also be comple		
RIPARIAN ZONE AND FLOODPL RIPARIAN WIDTH	AIN QUALITY ☆N FLOODPLAIN QUAL	IOTE: River Left (L) and F ITY	Right (R) as looking do	wnstream☆
L R (Per Bank)	L R (Most Pred	ominant per Bank)	LR	
✓ ✓ Wide >10m		est, Wetland forest, Shrub or Old		ation Tillage
Moderate 5-10m	Field	orest, emus or ord	Urban o	· Industrial
Narrow <5m	Residential	, Park, New Field	Open Pa	asture, Row Crop
None	Fenced Pas	sture	Mining o	r Construction
COMMENTS				
FLOW REGIME (At Time of Evalu	uation) (Check ONLY of			
Stream Flowing Subsurface flow with isolated pools	s (Interstitial)		I, isolated pools, no flo no water (Ephemeral)	w (Intermittent)
COMMENTS	,		,	
SINUOSITY (Number of bends pe	r 61 m (200 ft) of chanr	el) (Check ONLY one bo	ox):	
None 0.5	1.0 1.5	2.0	3.0	
0.5	1.0	L. 2.3	L /3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to	Severe	Severe (10 ft/100 ft)
	1.1.0 G O. G (2 10 100 1	,iviodorate to		

ADDITIONAL STREAM	M INFORMATION (This Information Must Als	o be Completed):		55-5268a
QHEI PERF	ORMED? - Yes V No QHEI Score	(If Yes, Atta	ch Completed QHEI Form))
DOWNSTRI WWH Name: Bry CWH Name: EWH Name:	EAM DESIGNATED USE(S) ant Creek		_ Distance from Evaluated _ Distance from Evaluated _ Distance from Evaluated	Stream _
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE <u>E</u>	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map P	age: 3 NRCS Soil N	Map Stream Order1
County: Monroe	Town	ship / City: Washir	ngton	
MISCELLAN Base Flow Conditions	P (Y/N): Y Date of last precipitation:	05/10/06	Quantity: 0.89	
Photograph Informatio	n: 107 Upstream / 108 Downstream / 109 Ri	ght Bank / 110 Left	Bank	
Elevated Turbidity? (Y	/N): N Canopy (% open): 25	%		
Were samples collecte	ed for water chemistry? (Y/N): N (Note la	b sample no. or id. a	and attach results) Lab Nun	nber:
Field Measures: Te	mp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmho	os/cm)
	representative of the stream (Y/N) Y If not lescription of pollution impacts:	, please explain:		
	(If Yes, Record all observations. Voucher ID number. Include appropriate field dated voucher? (Y/N) Salamanders (Served? (Y/N) Voucher? (Y/N) Aqua	a sheets from the Prince of STREAM R	Voucher? (Y/N) es Observed? (Y/N) REACH (This must be	Voucher? (Y/N)
FLOW S	See Stream Assessment Fo 35-S268a for site topogr aerial photograph, and r	aphic map,		





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW **Range:** R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 38

Legal Drain (Y/N): N **UTMN:** 14280873 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 6.0 feet OHWM Depth: 0.4 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes

Watershed Area: 0.02 sq mi Predominant Sub: Gravel/sand

0.09

Stream S5-S268c – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	154	0.02	0.09	
5	154	0.02	0.09	
6	154	0.02	0.09	
7	154	0.02	0.09	
8	154	0.02	0.09	

0.02

Description of Potential Impact:

154

RPA8

Impacts to S5-S268c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest within the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S268c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

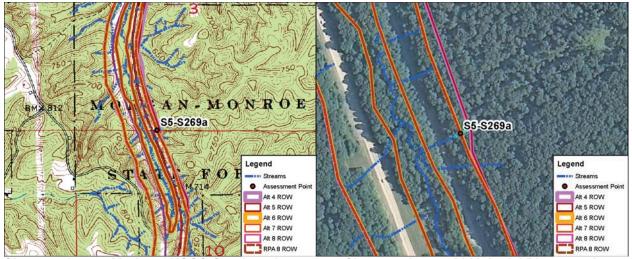


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S268c RIVER BASIN White River DRAINAGE AREA (mi²)	.02
LENGTH OF STREAM REACH (ft) 150 LAT. 39.32376 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51284) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 75% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 15% ARTIFICIAL [3 pts] 0%	18
Ortito (se min) [o pio]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B) Substrate Percentage Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.83	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Most Predominant per Bank) L R (Most Predominant per Bank) V Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.83	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Vide >10 m (<=3' 3") [5 pts] 1.83 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crown Residential, Park, New Field Open Pasture, Row Crown Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (=3' 3") [5 pts] 1.83 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m (=3' 3") [5 pts] 1.83 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (X) Mature Forest, Wetland Moderate 5-10 m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5 m Residential, Park, New Field Open Pasture, Row Crown Comments None Residential, Park, New Field Open Pasture, Row Crown Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Ory channel, no water (Ephemeral)	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ⅓ RIPARIAN WIDTH L R (Per Bank) Wide >10 m Wide >10 m Wide >10 m Woderate 5-10 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SITUANIFICATION SITUANIFICATION None SITUANIFICATION SITUANIFICATION SITUANIFICATION SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 Check ONLY one box): None 1.0 3.0	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.83 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY □ R (Per Bank) □ R (Most Predominant per Bank) □ R (Most Predominant per Bank) □ Conservation Tillage □ Immature Forest, Wetland □ Urban or Industrial Field □ Urban or Industrial Field □ Open Pasture, Row Cre □ None □ Fenced Pasture □ Mining or Construction COMMENTS □ Moist Channel, isolated pools, no flow (Intermittent) Stream Flowing Subsurface flow with isolated pools (Interstitial) □ Dry channel, no water (Ephemeral) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ⅓ RIPARIAN WIDTH L R (Per Bank) Wide >10 m Wide >10 m Wide >10 m Woderate 5-10 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SITUANIFICATION SITUANIFICATION None SITUANIFICATION SITUANIFICATION SITUANIFICATION SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 Check ONLY one box): None 1.0 3.0	Width Max=30 20

ADDITIONAL ST	TREAM INFORMATION (This Information Must Also be Completed):	, 60
QHEI P	PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)	
MAPPI	ING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangl	gle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: Monroe	e Township / City: Washington	
MISCE	ELLANEOUS	
Base Flow Condit	itions? (Y/N): Y Date of last precipitation: 04/24/12 Quantity: 0.15	
Photograph Inforr	mation:	
Elevated Turbidity	ty? (Y/N): _N Canopy (% open):20%	
Were samples co	ollected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (μmhos/cm)	
	reach representative of the stream (Y/N) If not, please explain:	
BIOTIC Performed? (Y/N)	C EVALUATION N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the	e site
Fish Observed? (Frogs or Tadpole:	es Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)	
	AWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Apportant landmarks and other features of interest for site evaluation and a narrative description of the stream's location	
FLOW -	See Stream Assessment Form	
- 	S5-S268c for site topographic map,	
	aerial photograph, and resource photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 28

Evaluation Score: 28 Legal Drain (Y/N): N

UTME: 1778364 ft **UTMN**: 14281039 ft

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.0 feet
OHWM Depth: 0.9 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq n

Watershed Area: 0.01 sq mi Predominant Sub: Gravel/clay

Stream S5-S269a – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	92	0.01	0.35		
5	94	0.01	0.36		
6	39	0.01	0.15		
7	39	0.01	0.15		
8	39	0.01	0.15		
RPA 8	39	0.01	0.15		

Description of Potential Impact:

Impacts to S5-S269a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S269a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



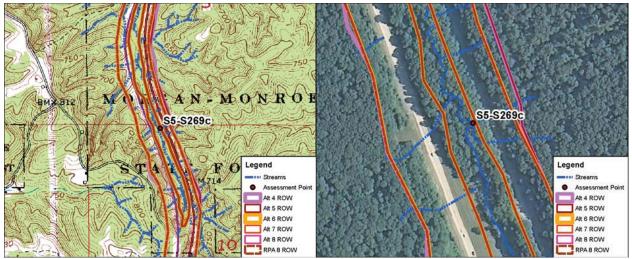
ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S269a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 181 LAT. 39.32421 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51219) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 35%	Max = 4
GRAVEL (2-64 mm) [9 pts] 55% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 0%	13
Total of Percentages of Apply (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	A * B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	الت
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 3.0' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.40	15
AVERAGE BANKFULL WIDTH (Heters).	13
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ Wide >10m ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m Field Urban or Industrial	
I II I Moderate 5-10m I II I I I I I I I I I I I I I I I I	ор
Narrow <5m	op
Narrow <5m Field Open Pasture, Row Cr	ор <u> </u>
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	L
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	L
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent	L
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	L
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS	L
Narrow <5m	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	

ADDITIONAL STREAM INFORMATION (This Information Mus	t Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Bryant Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream _
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe	Township / City:
MISCELLANEOUS	05/40/00
Base Flow Conditions? (Y/N): _ Y	
Photograph Information: 111 Upstream / 112 Downstream / 11	13 Right Bank / 114 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open):	30%
Were samples collected for water chemistry? (Y/N): (No	ote lab sample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	
Additional comments/description of polidion impacts.	
BIOTIC EVALUATION	
N	
Performed? (Y/N): (If Yes, Record all observations. V	oucher collections optional. NOTE: all voucher samples must be labeled with the site Id data sheets from the Primary Headwater Habitat Assessment Manual)
ib number. molde appropriate ne	id data sheets from the Filmary Fleadwater Frankat Assessment wandary
	ders Observed? (Y/N) Voucher? (Y/N)
	Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPT	TION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of intere	est for site evaluation and a narrative description of the stream's location
	·
See Stream Assessment	Form
FLOW 7	
S5-S269a for site top	OUYLADIIIC IIIAD,

Reset Form

aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 38

Evaluation Score: 38 Legal Drain (Y/N): N

UTME: 1778171 ft **UTMN**: 14280956 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 5.5 feet OHWM Depth: 0.35 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S269c – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	12	0.01	0.01		
5	12	0.01	0.01		
6	12	0.01	0.01		
7	12	0.01	0.01		
8	12	0.01	0.01		
RPA 8	12	0.01	0.01		

Description of Potential Impact:

Impacts to S5-S269c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S269c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



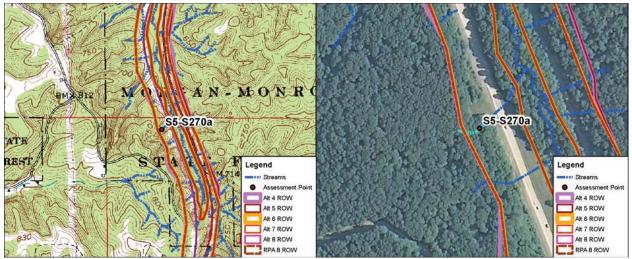
ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

38

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S269c RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 12 LAT. 39.32399 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51288) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] TALL (ABOVE 15 may 15 much 15 muc	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	A + B
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	Pool Depth Max = 30
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
COMMENTS OHW = 5.5'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.70	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) This information must also be completed RIPARIAN WIDTH **NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	-
Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	-
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/1	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/24/12 Quantity: 0.15
Photograph Information:
Elevated Turbidity? (Y/N):N Canopy (% open):20%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the si ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Vo
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
A Coo Characan Aggacamanh Harris
See Stream Assessment Form S5-S269c for site topographic map,
aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

05120201180 Watershed: Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI 19

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1777824 ft **UTMN:** 14280786 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.1 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m
	O

Predominant Sub: Clay/gravel

Stream S5-S270a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	153	0.01	0.66
5	150	0.01	0.65
6	150	0.01	0.65
7	150	0.01	0.65
8	150	0.01	0.65
RPA 8	150	0.01	0.65

Description of Potential Impact:

Impacts to S5-S270a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S270a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

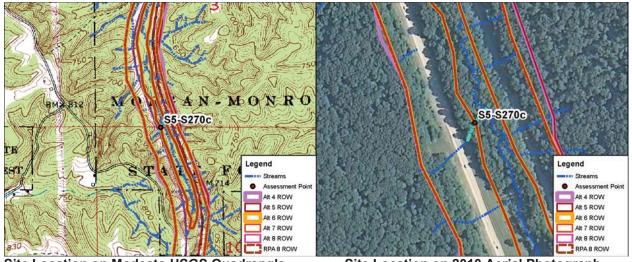
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S270a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 175 LAT. 39.32353 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51411) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
BEDROCK [16 pt]	Max = 4
GRAVEL (2-64 mm) [9 pts] 30% MUCK [0 pts] 0%	44
SAND (<2 mm) [6 pts]	14
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (- 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.1' / 0.9' AVERAGE BANKFULL WIDTH (meters): 0.34	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m Field Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cr	
	op
None Fenced Pasture Mining or Construction	ор
None Fenced Pasture Mining or Construction COMMENTS	ор -
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent	-
COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Ory channel, no water (Ephemeral)	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 0.5 3.0 >3.0 >3.0	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	-) <u> </u>

ADDITIONAL STREAM INFORMATION (This Information Mus	st Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe	Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N):Y Date of last precipitation	
Photograph Information: 181 Upstream / 182 Downstream / 18	83 Right Bank / 184 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open):	25%
Were samples collected for water chemistry? (Y/N): (N	ote lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
	If not, please explain:
ID number. Include appropriate fie Fish Observed? (Y/N) Voucher? (Y/N) Salamance	Voucher collections optional. NOTE: all voucher samples must be labeled with the sign of the Primary Headwater Habitat Assessment Manual) ders Observed? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
	FION OF STREAM REACH (This must be completed): est for site evaluation and a narrative description of the stream's location

FLOW

See Stream Assessment Form S5-S270a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 33

Evaluation Score: 33 Legal Drain (Y/N): N

UTME: 1778010 ft **UTMN**: 14281020 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.8 feet
OHWM Depth:	0.7 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: 0.01 sq mi Clay/gravel

	Stream S5-S270c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	202	0.02	0.10	
5	202	0.02	0.10	
6	202	0.02	0.10	
7	202	0.02	0.10	
8	202	0.02	0.10	
RPA 8	202	0.02	0.10	

Description of Potential Impact:

Impacts to S5-S270c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest within the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S270c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

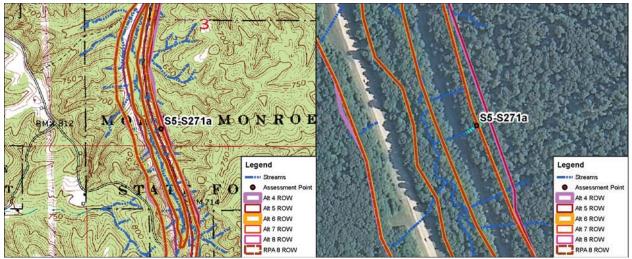


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

	THIEF COOLS (Sum of metrics 1, 2, 3):
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S	5-S270c RIVER BASIN White River DRAINAGE AREA (mi²) 0.01
LENGTH OF STREAM REACH (ft) 200	LAT. 39.32417 LONG. RIVER CODE RIVER MILE
DATE 04/25/12 SCORER KSS/DEV	
NOTE: Complete All Items On This Forn	n - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes
	ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
<u>TYPE</u> PI	ERCENT TYPE PERCENT Met
BLDR SLABS [16 pts]	0% SILT [3 pt] 0%
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 5% Subst
BEDROCK [16 pt] COBBLE (65-256 mm) [12 pts]	Max =
GRAVEL (2-64 mm) [9 pts]	20% MUCK [0 ptc] 0%
SAND (<2 mm) [6 pts]	15% ARTIFICIAL [3 pts] 0%
SAND (12 mm) [0 pts]	/ Territorial (o pio)
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B) A + I
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4
- `	paximum pool depth within the 61 meter (200 ft) evaluation reach at the time of
> 30 centimeters [20 pts]	d culverts or storm water pipes) (Check ONLY one box): Some 10 cm [15 pts]
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 4
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 4
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box): Bank
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	△ ≤ 1.0 m (<=3' 3") [5 pts] Max=
COMMENTS OHW = 3.8'/0.7'	AVERAGE BANKFULL WIDTH (meters): 1.16 1 15
	This information must also be completed
RIPARIAN ZONE AND FLOODP	
RIPARIAN WIDTH	FLOODPLAIN QUALITY
L R (Per Bank) Wide >10m	L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage
	Immature Forest Shrub or Old
Moderate 5-10m	Field Urban or Industrial
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop
None None	Fenced Pasture Mining or Construction
COMMENTS	
FLOW RECIME (At Time of Five	dusting (Obselv ON) Vanaless)
Stream Flowing	aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)
Subsurface flow with isolated poo	
COMMENTS	
SINI IOSITY (Number of bands of	per 61 m (200 ft) of channel) (Check ONLY one box):
■ None	
None U	1.0 2.0 3.0 3.0 1.5 2.5 3.0
0.5	1.0 2.0 3.0
0.5 STREAM GRADIENT ESTIMATE	1.0 1.5 2.0 2.5 3.0 >3
0.5	1.0 2.0 3.0

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S270c
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Att	tach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	ED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map	Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Wash	nington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation: 04/24/12	Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N): _ Canopy (% open): _ 20%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
PIOTIC FVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections option. ID number. Include appropriate field data sheets from the P Fish Observed? (Y/N) N Salamanders Observed? (Y/N) N Salamanders Observed? (Y/N) N Aquatic Macroinvertebra Comments Regarding Biology:	Voucher? (Y/N) N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation a	
See Stream Assessment Form	
S5-S270c for site topographic map	p,
aerial photograph, and resource p	photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 12

Legal Drain (Y/N): N **UTMN:** 14281384 ft

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.5 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq n

Watershed Area: 0.01 sq mi
Predominant Sub: Leaf pack/clay

Stream S5-S271a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	92	0.01	0.55
5	92	0.01	0.56
6	73	0.01	0.26
7	73	0.01	0.26
8	73	0.01	0.26
RPA 8	73	0.01	0.26

Description of Potential Impact:

Impacts to S5-S271a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S271a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3) :

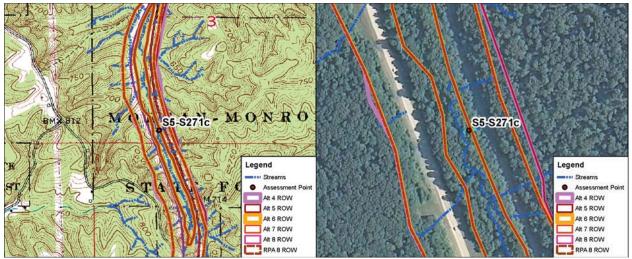
	THIEF COOLS (Sum of metrics 1, 2, 3) .	
SITE NAME/LOCATION I-69 Section 5	DF 0074	
OTTE NOMBER	65-S271a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 92	LAT. 39.32517 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeke	COMMENTS (Long: -86.51268) (Natural-Class I)	
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NA MODIFICATIONS:	TURAL CHANNEL	COVERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metri
TYPE P BLDR SLABS [16 pts]	PERCENT TYPE PERCENT 0% SILT [3 pt] 0%	Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 40%	
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0%	Substra
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 30%	Max = 4
GRAVEL (2-64 mm) [9 pts]	20% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	10% ARTIFICIAL [3 pts] 0%	
Total of Percentages of	0.00% (A) Substrate Percentage Check 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS		
2. Maximum Pool Depth (Measure the m	maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool De
evaluation. Avoid plunge pools from road	nd culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	I
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
anhamanal magah		
COMMENTS epnemeral reach	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW - 1.5' / 0.8'	AVERAGE BANKFULL WIDTH (meters): 0.46	5
	, ,	
RIPARIAN ZONE AND FLOODP	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m	Field Urban or Industrial	
☐☐ Narrow <5m	Residential, Park, New Field Open Pasture, Row Co	rop
None	Fenced Pasture Mining or Construction	1
COMMENTS		1
FLOW REGIME (At Time of Eva	aluation) (Check ONLY one box):	
Stream Flowing `	Moist Channel, isolated pools, no flow (Intermitten	t)
Subsurface flow with isolated poor	ols (Interstitial) Dry channel, no water (Ephemeral)	7
COMMENTS_		
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
✓ 0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	☐ Moderate (2 ft/100 ft)	100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation:
Photograph Information: 115 Upstream / 116 Downstream / 117 Right Bank / 118 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 20%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site of the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



See Stream Assessment Form S5-S271a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Secret: 14

Evaluation Score: 14
Legal Drain (Y/N): N

UTME: 1778033 ft **UTMN**: 14281303 ft

US	GS	Quadrangle:	Modesto
_			_

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.9 feet
OHWM Depth: 0.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq.n

Watershed Area: 0.01 sq mi Predominant Sub: Leaf Pack/silt

Stream S5-S271c – Modified Class I PHWH							
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)				
4	75	0.01	0.05				
5	75	0.01	0.05				
6	75	0.01	0.05				
7	75	0.01	0.05				
8	75	0.01	0.05				
RPA 8	75	0.01	0.05				

Description of Potential Impact:

Impacts to S5-S271c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of leaf pack and silt. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S271c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



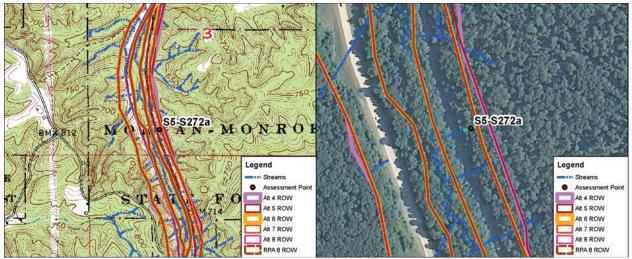
Primary Headwater Habitat Evaluation Form

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HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S271c DRAINAGE AREA (mi²) 0.01 SITE NUMBER 100 LAT. 39.32495 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.51336) (Natural-Modified Class I) DATE **04/25/12** KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 40% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 50% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 10% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 9 0% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.9'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.88 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFOR	MATION (This Information Must A	Also be Completed):		55-52/IC
QHEI PERFORMED? - Yes / No QHEI Score (If Yes, Attach Completed QHEI Form)				
DOWNSTREAM DES	SIGNATED USE(S)		_	
WWH Name: Bryant Creek	(Distance from Evaluat	ed Stream 0.92
CWH Name: _			Distance from Evaluate	ed Stream _
EWH Name:			Distance from Evaluate	ed Stream _
	COPIES OF MAPS, INCLUDING THE	ENTIRE WATERSHE	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Name: Mod	esto	NRCS Soil Map I		Map Stream Order
County: Monroe	To	wnship / City: Wash	ington	
MISCELLANEOUS				_
Base Flow Conditions? (Y/N):_	Y Date of last precipitation:_	04/24/12	Quantity: 0.15	
Photograph Information:				
Elevated Turbidity? (Y/N): _ N	carrepy (// open).	20%		
Were samples collected for wat	er chemistry? (Y/N): N	e lab sample no. or id.	and attach results) Lab Nu	umber:
Field Measures: Temp (°C)	Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (μm	hos/cm)
Is the sampling reach represent	ative of the stream (Y/N)	not, please explain:		
Additional comments/description	n of pollution impacts:			
BIOTIC EVALUATIO	N			
Performed? (Y/N):	 (If Yes, Record all observations. Vou	cher collections optiona	al. NOTE: all voucher samp	les must be labeled with the site
` , _	ID number. Include appropriate field	data sheets from the Pr	rimary Headwater Habitat A	ssessment Manual)
Fish Observed? (Y/N) N	Voucher? (Y/N) N Salamander	rs Observed? (Y/N)	Voucher? (Y/N)	
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Ac	quatic Macroinvertebra	ates Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding Biology:				
DRAWING ANI	D NARRATIVE DESCRIPTION	ON OF STREAM I	REACH (This must b	pe completed):
Include important landm	arks and other features of interes	t for site evaluation a	nd a narrative description	of the stream's location
·			·	
See S	Stream Assessment	Form		
FLOW S5-Si	271c for site topo	ographic mar	Ο,	
	al photograph, and			
		_	- -	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 1.3 feet

Channelized/Type:No/NaturalOHWM Depth:0.7 feetStream Type:EphemeralUSCOE Jurisdiction:YesEvaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Score:12Watershed Area:0.01 sq mi

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Leaf Pack, Clay

UTME: 1778134 ft **UTMN**: 14281565 ft

Stream S5-S272a – Class I PHWH							
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)				
4	88	0.01	0.60				
5	88	0.01	0.61				
6	82	0.01	0.34				
7	82	0.01	0.34				
8	82	0.01	0.34				
RPA 8	82	0.01	0.34				

Description of Potential Impact:

Impacts to S5-S272a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S272a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



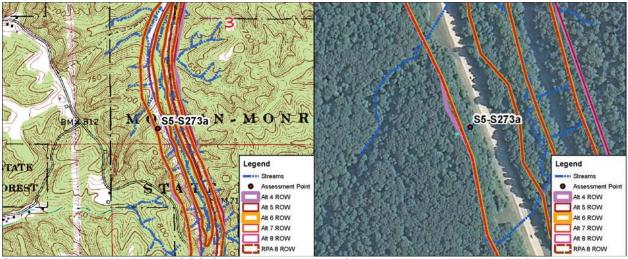
Primary Headwater Habitat Evaluation Form

12

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S272a DRAINAGE AREA (mi²) 0.01 SITE NUMBER 80 LAT. 39.32566 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long: -86.51300) (Natural-Class I) J Meeker SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 35% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 30% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 25% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 10% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 4 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 2.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFO	ORMATION (This Information Must Also be Completed):	55-5	02 /2a
QHEI PERFORME	ED? - Yes 🗸 No QHEI Score (If Yes, Atta	ach Completed QHEI Form)	
DOWNSTREAM D WWH Name: Bryant Cro CWH Name: EWH Name:	PESIGNATED USE(S) eek	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	
	AL CODIES OF MADE INCLUDING THE ENTIRE WATERCHE		
USGS Quadrangle Name:	CH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHEI		1
Managa	Week	Page: 3 NRCS Soil Map Stream Order ington	
County: Monroe	Township / City: washi	g.o.i	
MISCELLANEOUS Base Flow Conditions? (Y/N)		Quantity: 0.89	
	9 Upstream / 120 Downstream / 121 Right Bank / 122 Left	t Bank	
	N Canopy (% open):25%		
Were samples collected for v	water chemistry? (Y/N): N (Note lab sample no. or id.	and attach results) Lab Number:	
Field Measures: Temp (°C		Conductivity (µmhos/cm)	
Is the sampling reach represe	entative of the stream (Y/N) If not, please explain:		
Additional comments/descrip	otion of pollution impacts:		
BIOTIC EVALUAT	ΠΟΝ		
Performed? (Y/N): N	(If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Pr	·	ı the site
Fish Observed? (Y/N)	Voucher? (Y/N) Salamanders Observed? (Y/N)	Voucher? (Y/N)	1
Frogs or Tadpoles Observed Comments Regarding Biolog		ates Observed? (Y/N) Voucher? (Y/N)	
Comments regarding Biolog	y		
DRAWING A	AND NARRATIVE DESCRIPTION OF STREAM F	REACH (This <u>must</u> be completed):	
Include important land	dmarks and other features of interest for site evaluation a	nd a narrative description of the stream's locat	ion
FLOW See	Stream Assessment Form		
S5-	S272a for site topographic map	ο,	
aer	ial photograph, and resource p	photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Unnamed Trib. Bryant Ck

Stream Name: Quarter: SW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI 50

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1777639 ft **UTMN:** 14281360 ft

USGS Quadrangle:	Modesto
Section:	3

Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.8 feet **OHWM Depth:** 0.9 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S273a –Class II PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	11	0.01	0.05		
5	0	0.00	0.01		
6	0	0.00	0.01		
7	0	0.00	0.01		
8	0	0.00	0.01		
RPA 8	0	0.00	0.01		

Description of Potential Impact:

Impacts to S5-S273a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S273a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



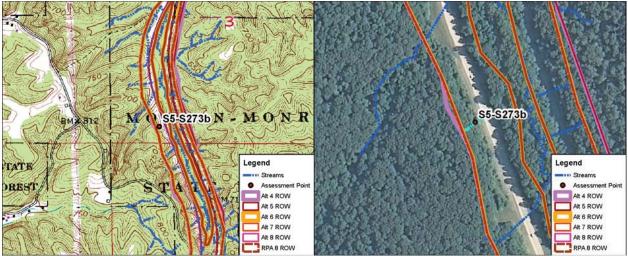
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S273a RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 120 LAT. 39.32511 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51475) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 3%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 45% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 7	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 2.8' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.20	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Field Field Urban or industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	pp
None Fenced Pasture Mining or Construction	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS_	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 2.0 3.0 3.0 >3	
STREAM GRADIENT ESTIMATE	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes / No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_Y Date of last precipitation:05/10/06 Quantity:0.89
Photograph Information: 177 Upstream / 178 Downstream / 179 Right Bank / 180 Left Bank
Elevated Turbidity? (Y/N):N Canopy (% open):30%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) V
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S273a for site topographic map, aerial photograph, and resource photographs





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 2.0 feet

Channelized/Type: Yes/Concrete Gutter OHWM Violtn: 2.0 feet OHWM Depth: 0.2 feet Stream Type: Ephemeral USCOE Jurisdiction: No IDEM Jurisdiction: No

Evaluation Score: 12 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1777770 ft **UTMN**: 14281429 ft

Stream S5-S273b – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	130	0.01	0.60		
5	130	0.01	0.58		
6	130	0.01	0.58		
7	130	0.01	0.58		
8	130	0.01	0.58		
RPA 8	130	0.01	0.58		

Description of Potential Impact:

Impacts to S5-S273b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The artificial substrate consists of a concrete gutter. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S273b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



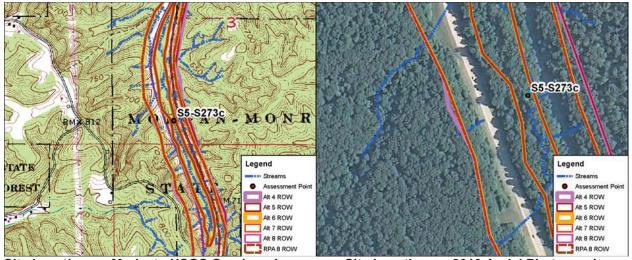
SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S273b RIVER BASIN White River DRAINAGE AREA (mi²) 0.01 LENGTH OF STREAM REACH (ft) 130 LAT. 39.32529 LONG. RIVER CODE RIVER MILE	
	一
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.51428) (Concrete Gutter-Modified Class I))
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	ons
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER MODIFICATIONS:	RY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	IHEI
TYPE PERCENT TYPE PERCENT ME	etri
BLDR SLABS [16 pts]	oint
BEDROCK [16 pt] 0% Sub	bstrat
COBBLE (65-256 mm) [12 pts]	1X - 4
	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	+ B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	ol Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts] > 30 centimeters [20 pts]	ax = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	ankful
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Vidth ax=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
OLIM BY OLI	_
COMMENTS OHW 2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.61	5
	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Wide >10m Moderate 5-10m Urban or Industrial	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Moderate 5-10m Immature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crop None Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\times \text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Vrban or Industrial Moderate 5-10m Residential, Park, New Field Open Pasture, Row Crop None Residential, Park, New Field Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS Dry channel, no water (Ephemeral)	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and River Left (L)	5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): N Date of last precipitation: 06/30/12 Quantity: 0.01
Photograph Information: 39 - Up, 40 - DS
Elevated Turbidity? (Y/N): N Canopy (% open): 40%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Vouc
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

FLOW

S5-S273b for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Modesto

3

T10N

Aquatic Resource: Stream USGS Quadrangle:

Stream Name: Unnamed Trib. Bryant Ck Section:
Quarter: SW Township:
Page: P1W 105401 in the property of the pr

Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 2.1 feet Channelized/Type: No/Natural OHWM Depth: 0.2 feet **Ephemeral USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 19 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Silt/gravel

UTME: 1777917 ft **UTMN**: 14281497 ft

Stream S5-S273c – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	52	0.01	0.05	
5	52	0.01	0.05	
6	52	0.01	0.05	
7	52	0.01	0.05	
8	52	0.01	0.05	
RPA 8	52	0.01	0.05	

Description of Potential Impact:

Impacts to S5-S273c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate primarily consists of a silt and gravel. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S273c are on the second page of this form.



Photograph Taken Upstream



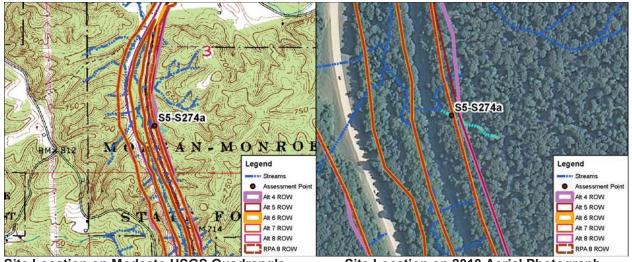


19

SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S273c RIVER BASIN White River DRAINAGE AREA (mi²) 0.01 111 LAT. 39.32548 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.51376) (Modified Class I) DATE 07/10/12 SCORER BLA Inc. NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 70% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 30% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 14 0% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 12 TOTAL NUMBER OF SUBSTRATE TYPES: 2 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.84 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (TI	nis Information Must Also	be Completed):		S5-S273C
QHEI PERFORMED? - Yes	✓ No QHEI Score	(If Yes, Attac	ch Completed QHEI For	rm)
DOWNSTREAM DESIGNATED UNDER WHY Name: Bryant Creek CWH Name: EWH Name:	JSE(S)		_ Distance from Evalua _ Distance from Evalua _ Distance from Evaluat	ted Stream _
MAPPING: ATTACH COPIES OF	MAPS, INCLUDING THE <u>EI</u>	ITIRE WATERSHED	AREA. CLEARLY MAR	K THE SITE LOCATION
USGS Quadrangle Name: Modesto		NRCS Soil Map Pa	age: NRCS Sc	il Map Stream Order
County: Monroe	Towns	ship / City: Washi n	ngton	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	te of last precipitation:	06/30/12	Quantity: 0.0	1
Photograph Information: P37 - Down, P38				
· (, _	anopy (% open): 909	<u>/6</u>		
Were samples collected for water chemistry	/? (Y/N): _ N (Note lal	sample no. or id. a	nd attach results) Lab N	lumber:
	solved Oxygen (mg/l)	pH (S.U.)	Conductivity (µr	mhos/cm)
Is the sampling reach representative of the	stream (Y/N)	please explain:		
Additional comments/description of pollution	n impacts:			
ID number. Fish Observed? (Y/N) Voucher? (Y/N)	Include appropriate field data (/N) N Salamanders C	a sheets from the Prinbserved? (Y/N)	mary Headwater Habitat A	ples must be labeled with the site Assessment Manual) Voucher? (Y/N)
DRAWING AND NARRA			-	
See Stream	Assessment Fo	rm		
S5-S273c fc	or site topogr			
aerial phot	ograph, and r	esource ph	notographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 28

Evaluation Score: 28 Legal Drain (Y/N): N

UTME: 1778041 ft **UTMN**: 14282012 ft

US	SGS	Quadrangle:	Modesto
_	4.0		•

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.1 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.02 sq r

Watershed Area: 0.02 sq mi Predominant Sub: Gravel/clay

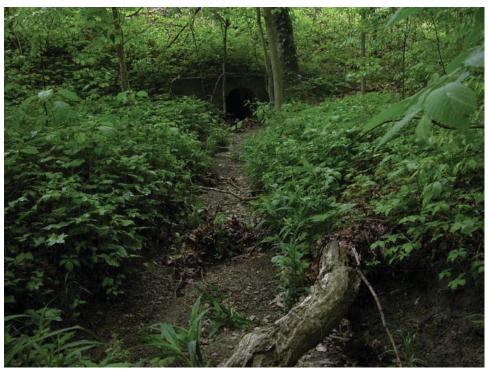
Stream S5-S274a –Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	114	0.01	0.57	
5	116	0.01	0.55	
6	74	0.01	0.34	
7	74	0.01	0.34	
8	74	0.01	0.34	
RPA 8	74	0.01	0.34	

Description of Potential Impact:

Impacts to S5-S274a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S274a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form

28

HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S274a DRAINAGE AREA (mi²) 0.02 SITE NUMBER 200 LAT. **39.32689** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long: -86.51332) (Natural-Class I) J Meeker SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 5% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 10% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 4035% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 50% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 13 0% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 4 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.1' / 0.8' AVERAGE BANKFULL WIDTH (meters): 1.25 15 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3

Severe (10 ft/100 ft)

Moderate (2 ft/100 ft)

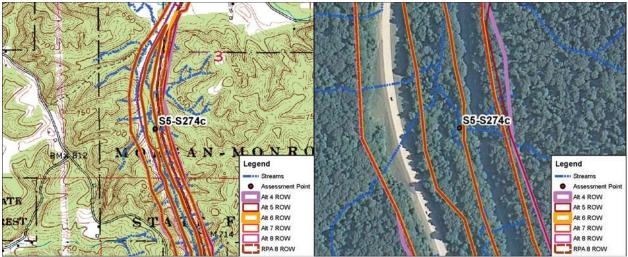
Flat (0.5 ft/100 ft)

STREAM GRADIENT ESTIMATE

Flat to Moderate

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S274a
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, At	tach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map	Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Wash	ington
MISCELLANEOUS Base Flow Conditions? (Y/N): N Date of last precipitation: 05/10/06	Quantity: 0.89
Photograph Information: 123 Upstream / 124 Downstream / 130 Right Bank / 129 Let	ft Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections option ID number. Include appropriate field data sheets from the P Fish Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: Voucher? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation a	
See Stream Assessment Form	
S5-S274a for site topographic map	
aerial photograph, and resource p	hotographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:SWTownship:T10NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120201180 OHWM Width: 3.6 feet Channelized/Type: No/Natural OHWM Depth: 0.6 feet **Ephemeral USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes

Evaluation Score: 23 Watershed Area: 0.02 sq mi
Legal Drain (Y/N): N Predominant Sub: Gravel/sand

UTME: 1777812 ft **UTMN**: 14282054 ft

Stream S5-S274c –Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	52	0.01	0.00	
5	52	0.01	0.00	
6	52	0.01	0.00	
7	52	0.01	0.00	
8	52	0.01	0.00	
RPA 8	52	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S274c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S274c are on the second page of this form.



Photograph Taken Upstream



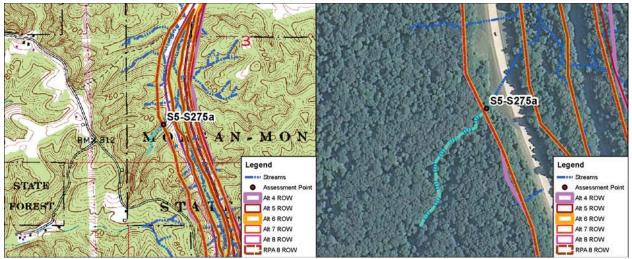
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S274c RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 80 LAT. 39.32701 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51413) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 80% MUCK [0 pts] 0%	18
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
DANK FILL WIRTH (Managed on the course of 2.4 managements). (Check ON Verse box)	
3 BANK FULL WIDTH (Measured as the average of 3-4 meas <u>ure</u> ments) (Check <i>ONLY</i> one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' AVERAGE BANKFULL WIDTH (meters): 0.98	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V Wide > 10m V Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10 m Moderate 5-10m Noderate 5-10m AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m Noderate 5-10m AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) V Wature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' AVERAGE BANKFULL WIDTH (meters):	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream in the completed in the complete in the c	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 5

ADDITIONAL STREAM INFO	RMATION (This Information Mu	ıst Also be Completed):		55-52/40
QHEI PERFORMED	9? - Yes 🗸 No QHEI Scor	re (If Yes, Att	ach Completed QHEI For	m)
DOWNSTREAM DE WWH Name: Bryant Crea CWH Name: EWH Name:	SIGNATED USE(S) ek		Distance from Evaluat Distance from Evaluat Distance from Evaluat	red Stream
MAPPING: ATTACH	I COPIES OF MAPS, INCLUDING	THE ENTIRE WATERSHE	DAREA. CLEARLY MAR	K THE SITE LOCATION
USGS Quadrangle Name: Mc	desto	NRCS Soil Map	Page: NRCS So	il Map Stream Order
County: Monroe		Township / City: Wash	ington	
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_	Y Date of last precipitation	on:04/24/12	Quantity: 0.1	5
Photograph Information:				
Elevated Turbidity? (Y/N):N	Canopy (% open):	20%		
Were samples collected for wa	ater chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab N	lumber:
Field Measures: Temp (°C	Dissolved Oxygen (mg	/l)pH (S.U.)	Conductivity (µr	nhos/cm)
Is the sampling reach represe		If not, please explain:		
BIOTIC EVALUATI	ON			
Performed? (Y/N): N	(If Yes, Record all observations. ID number. Include appropriate f	•		•
Fish Observed? (Y/N) N Frogs or Tadpoles Observed?	Voucher? (Y/N) N Salaman (Y/N) N Voucher? (Y/N) N	nders Observed? (Y/N) N Aquatic Macroinvertebra	Voucher? (Y/N) Nates Observed? (Y/N) N	Voucher? (Y/N) N
Comments Regarding Biology				
DRAWING AN	ND NARRATIVE DESCRIP	TION OF STREAM	REACH (This must	be completed):
Include important land	marks and other features of inte	erest for site evaluation a	nd a narrative descriptio	n of the stream's location
• 0	Ctroom Aggagger	nt Eorm		
FLOW T	Stream Assessmer S274c for site to		n.	
	ial photograph,		_	

Reset Form



Site Location on 2010 Aerial Photograph

Modesto

3

T10N

Aquatic Resource: Stream USGS Quadrangle:

Stream Name:Unnamed Trib. Bryant CkSection:Quarter:SWTownship:Range:R1WIDEM 303(d) List:

N/A Watershed: 05120201180 OHWM Width: 2.4 feet Channelized/Type: No/Natural OHWM Depth: 0.8 feet **Ephemeral USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 40 **Watershed Area:** 0.07 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Gravel/sand

UTME: 1777414 ft **UTMN**: 14281820 ft

Stream S5-S275a –Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	52	0.01	0.23	
5	50	0.01	0.22	
6	50	0.01	0.22	
7	50	0.01	0.22	
8	50	0.01	0.22	
RPA 8	50	0.01	0.22	

Description of Potential Impact:

Impacts to S5-S275a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S275a are on the second page of this form.



Photograph Taken Upstream



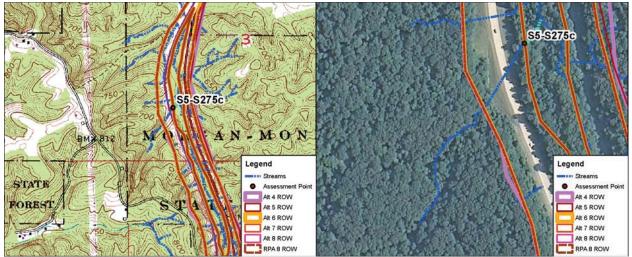
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S275a RIVER BASIN White River DRAINAGE AREA (mi²)	0.07
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32637 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51554) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 3%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 20% FINE DETRITUS [3 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 45% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 30% ARTIFICIAL [3 pts] 0%	20
Ortho (*2 mm) [o pto]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	15
	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 7	
2 DANK FULL MIDTH (Massured as the exercise of 2.4 massurements) (Check ONI View how):	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 0.73	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.73 This information must also be completed ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5-10m Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30 5
> 4.0 meters (> 13') [30 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 0.73	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Most Predominant per Bank) RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30 5
> 4.0 meters (> 13') [30 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) D Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) No water (Ephemeral)	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30 5
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) V WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 05/10/06 Quantity: 0.89
Photograph Information:
Elevated Turbidity? (Y/N): Canopy (% open):
Were samples collected for water chemistry? (Y/N): Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sill number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology.
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
include important landmarks and other reatures of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form
S5-S275a for site topographic map,
aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A 05120201180 OHWM Width: Watershed: 5.0 feet

Channelized/Type: No/Natural OHWM Depth: 0.7 feet Stream Type: **Ephemeral USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 43 Watershed Area: 0.07 sq mi

Legal Drain (Y/N): N Predominant Sub: Gravel

UTME: 1777612 ft **UTMN**: 14282142 ft

Stream S5-S275c –Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	179	0.02	0.24	
5	179	0.02	0.24	
6	179	0.02	0.24	
7	179	0.02	0.24	
8	179	0.02	0.24	
RPA 8	179	0.02	0.24	

Description of Potential Impact:

Impacts to S5-S275c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S275c is gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S275c are on the second page of this form.



Photograph Taken Upstream



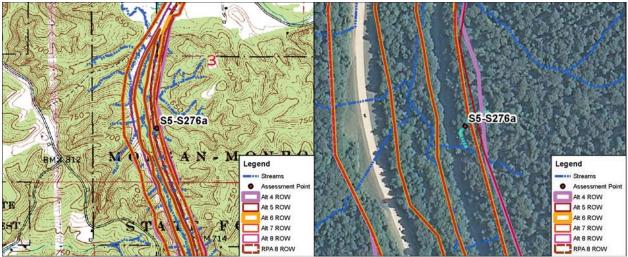
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S275c RIVER BASIN White River DRAINAGE AREA (mi²)	.07
LENGTH OF STREAM REACH (ft) 195 LAT. 39.32726 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51483) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	LUEL
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
☐ ☐ COBBLE (65-256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 85% MUCK [0 pts] 0% ARTIFICIAL (3 pts)	18
Orato (*2 min) [o pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	_
	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 4.0 meters (> 13) [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 5'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.52	20
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	
Wide >10m	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Field Urban or industrial	ор
Field Urban or industrial	op
Narrow <5m Field Orban or Industrial Open Pasture, Row Cri	op -
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
Narrow <5m	-
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	-
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	-
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Open Pasture, Row Cro Mining or Construction Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)	-
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	-
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	-) <u> </u>

ADDITIONAL STREAM	I INFORMATION (This Information I	- Must Also	be Completed):		S5-S2750
-	DRMED? - Yes ✓ No QHEISC			ich Completed QHEI Form)	
DOWNSTRE	AM DESIGNATED USE(S)				
WWH Name: Brya	• • •			Distance from Evaluated Stream	0.72
CWH Name:				Distance from Evaluated Stream	
EWH Name:				Distance from Evaluated Stream	
MAPPING: A	TTACH COPIES OF MAPS, INCLUDIN	IG THE EN	TIRE WATERSHEE	AREA. CLEARLY MARK THE SITE I	LOCATION
USGS Quadrangle Nan	ne: Modesto		NRCS Soil Map P	Page: NRCS Soil Map Stream	m Order
County: Monroe		Townsh	nip / City: Washi	ngton	
MISCELLAN Base Flow Conditions?	(Y/N): Y Date of last precipita	ation:	04/24/12	Quantity: 0.15	
Photograph Information	N	0.50/			
Elevated Turbidity? (Y/I					
Were samples collected	d for water chemistry? (Y/N): N			and attach results) Lab Number:	
				Conductivity (µmhos/cm)	
Is the sampling reach re	epresentative of the stream (Y/N)	If not, p	olease explain:		
Additional comments/de	escription of pollution impacts:				
BIOTIC EVA Performed? (Y/N): N	(If Yes, Record all observations		·	. NOTE: all voucher samples must be mary Headwater Habitat Assessment M	
Fish Observed? (Y/N) Frogs or Tadpoles Observed:	erved? (Y/N) N Voucner? (Y/N) N	nanders Ob Aquati	oserved? (Y/N) N c Macroinvertebrat	Voucher? (Y/N) N tes Observed? (Y/N) N Voucher?	(Y/N) N
DRAWIN	NG AND NARRATIVE DESCR	IPTION (OF STREAM R	PFACH (This must be comple	etad):
	nt landmarks and other features of ir			· —	•
moidde importar	icianumarks and outer readures of in	nierest ioi	site evaluation an	a namauve description of the site	am s location
FLOW -	See Stream Assessme	nt Fo	rm		
FLUVV -	S5-S275c for site t	opogra	aphic map	ı	
ā	aerial photograph,	and re	esource p	hotographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 21

Legal Drain (Y/N): N

UTME: 1777980 ft **UTMN**: 14282151 ft

USGS Quadrangle:	Modesto
Section:	3
Tarressa la la c	TAON

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.0 feet
OHWM Depth: 0.5 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq

Watershed Area: 0.01 sq mi
Predominant Sub: Gravel/leaf pack

Stream S5-S276a –Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	247	0.01	0.52	
5	212	0.01	0.35	
6	172	0.01	0.21	
7	172	0.01	0.21	
8	172	0.01	0.21	
RPA 8	172	0.01	0.21	

Description of Potential Impact:

Impacts to S5-S276a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks until the channel turns to the south and runs parallel to SR 37, where the riparian buffer is narrow. The adjacent floodplain consists of mature forest and transportation. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S276a are on the second page of this form.



Photograph Taken Upstream



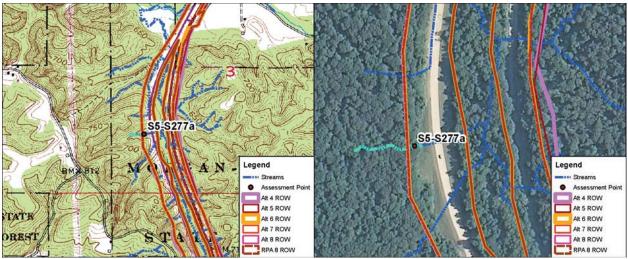
Photograph Taken Downstream



	THIEF COOLE (sum of metrics 1, 2, 3) !	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S	75-S276a RIVER BASIN White River DRAINAGE AREA (mi²) 0.	01
	LAT. 39.32727 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker		
		-
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECO	OVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
, -	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
<u>TYPE</u> <u>PI</u>	ERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	0% SILT [3 pt] 10%	Point
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	0% LEAF PACK/WOODY DEBRIS [3 pts] 25% 0%	Substra
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	55% MUCK [0 pts] 0%	4.0
SAND (<2 mm) [6 pts]	10% ARTIFICIAL [3 pts] 0%	16
T. I. (D	Cubatrata Darantaga	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
A Mariana Bard Bard (Mariana da maria		D. I.D.
• •	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of d culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	max c
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfu Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW - 1.0' / 0.5'	AVERAGE BANKFULL WIDTH (meters): 0.30	5
OSIMILATIO	AVERAGE BARRI GEE VIIB III (IIIcicis).	3
RIPARIAN ZONE AND FLOODP	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Cro	р
None None	Fenced Pasture Mining or Construction	
COMMENTS	Fenced Pasture Minning or Construction	
,	aluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated poo	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS_		
CINII/OCITY/Allerters (1)	Constitution (2000 ft) of about all (Charle ON) (Charle ON)	
SINUOSITY (Number of bends p None	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
0.5	1.5 2.5 3	
OTDEAN 001015115 -0		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	() ft)
id. o moderate		7

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Completed):	S5-S2/6a
QHEI PERF	FORMED? - Yes No QHEI Score (If Yes, Att.	ach Completed QHEI Form)
DOWNSTR WWH Name: Bry CWH Name: _	rant Creek	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	Modesto NRCS Soil Map I	Page: 3 NRCS Soil Map Stream Order
County: Monroe		ington
MISCELLAI Base Flow Conditions	?? (Y/N):_Y Date of last precipitation:05/10/06	Quantity: 0.89
Photograph Information	on: 125 Upstream / 126 Downstream / 127 Right Bank / 128 Lef	t Bank
Elevated Turbidity? (Y	//N): N Canopy (% open): 20%	
Were samples collecte	ed for water chemistry? (Y/N): Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
	representative of the stream (Y/N) If not, please explain:	
BIOTIC EV	ALUATION	
Performed? (Y/N): _N	(If Yes, Record all observations. Voucher collections options ID number. Include appropriate field data sheets from the Pr	·
Fish Observed? (Y/N) Frogs or Tadpoles Ob		Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding	Biology:	
DRAWI	ING AND NARRATIVE DESCRIPTION OF STREAM I	REACH (This <u>must</u> be completed):
Include importa	ant landmarks and other features of interest for site evaluation a	nd a narrative description of the stream's location
FLOW -	See Stream Assessment Form	
	S5-S276a for site topographic map	
	aerial photograph, and resource p	photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 51

Evaluation Score: 51
Legal Drain (Y/N): N

UTME: 1777328 ft **UTMN**: 14282262 ft

US	GS	Quadrangle:	Modesto
_			_

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.5 feet
OHWM Depth: 1.1 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.04 sq n

Watershed Area: 0.04 sq mi Predominant Sub: Gravel/sand

Stream S5-S277a –Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	75	0.01	0.28	
5	73	0.01	0.27	
6	73	0.01	0.27	
7	73	0.01	0.27	
8	73	0.01	0.27	
RPA 8	73	0.01	0.27	

Description of Potential Impact:

Impacts to S5-S277a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S277a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

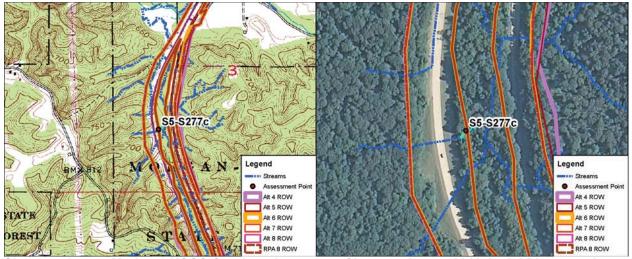


		51
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SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S277a RIVER BASIN White River DRAINAGE AREA (mi²) 0	04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32759 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51583) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 2% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ GRAVEL (2-64 mm) [9 pts] 55% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	21
Total of Percentages of O OOM (A) Substrate Percentage (B)	A D
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	ımax o
→ > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
	D. J.C.
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 4.5'/1.1' AVERAGE BANKFULL WIDTH (meters): 1.37	15
7021010 <u></u>	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5-10m Urban or Industrial	
——————————————————————————————————————	n
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	p
Field —— Open Pasture Row Crr	p
Narrow <5m Residential, Park, New Field Open Pasture, Row Crow None Fenced Pasture Mining or Construction COMMENTS	p
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3 1.5 2.5 3	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crown None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	

ADDITIONAL STREAM	INFORMATION (This Information N	lust Also be Completed)	<u>:</u>	55-52//a
QHEI PERFO	ORMED? - Yes ✓ No QHEI Sco	ore (If Yes, A	ttach Completed QHEI Form	m)
DOWNSTRE WWH Name: Brya CWH Name: EWH Name:	AM DESIGNATED USE(S) nt Creek		Distance from Evaluate Distance from Evaluate Distance from Evaluate	ed Stream
	TTACH COPIES OF MAPS, INCLUDING	G THE ENTIRE WATERSH		_
USGS Quadrangle Nan		NRCS Soil Map		I Map Stream Order
County: Monroe			hington	
MISCELLAN	EOUS	- , ,		-
Base Flow Conditions?	(Y/N): Y Date of last precipitar	tion: 05/10/06	Quantity: 0.89	
Photograph Information				
Elevated Turbidity? (Y/I	N): _N Canopy (% open):	60%		
Were samples collected	d for water chemistry? (Y/N):	(Note lab sample no. or id	d. and attach results) Lab N	umber:
	mp (°C) Dissolved Oxygen (m	ng/l) pH (S.U.)	Conductivity (µm	nhos/cm)
Is the sampling reach re	epresentative of the stream (Y/N)	If not, please explain:_		
Additional comments/de	escription of pollution impacts:			
BIOTIC EVA	LUATION			
Performed? (Y/N): _ N	(If Yes, Record all observations ID number. Include appropriate	·	·	oles must be labeled with the site
Fish Observed? (Y/N) Frogs or Tadpoles Obs	Voucher? (Y/N) N Salamerved? (Y/N) N Voucher? (Y/N) N	anders Observed? (Y/N)		Voucher? (Y/N)
Comments Regarding E	Biology:			
	IG AND NARRATIVE DESCRI		· —	
Include importar	nt landmarks and other features of in	terest for site evaluation	and a narrative description	of the stream's location
	See Stream Assessme:	nt Form		
FLOW	S5-S277a for site to		p,	
ć	aerial photograph,	and resource	photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 33

Legal Drain (Y/N): N

UTME: 1777584 ft **UTMN**: 14282337 ft

USGS Quadrangle:	Modesto
------------------	---------

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.8 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.04 sq m

Watershed Area: 0.04 sq mi Predominant Sub: Gravel/sand

Stream S5-S277c –Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	188	0.02	0.24	
5	188	0.02	0.24	
6	188	0.02	0.24	
7	188	0.02	0.24	
8	188	0.02	0.24	
RPA 8	188	0.02	0.24	

Description of Potential Impact:

Impacts to S5-S277c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S277c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

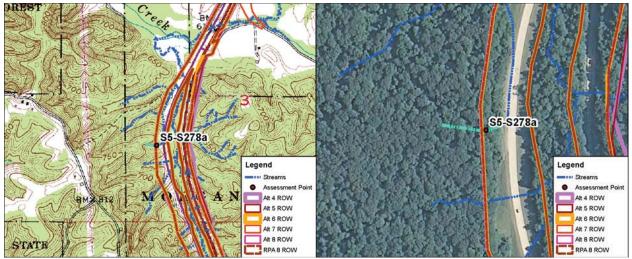


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S277c RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 175 LAT. 39.32779 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51493) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to This	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 45% MUCK [0 pts] 0%	18
SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitte	Width Max=30
A.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Narrow <5m Narrow <5m None Fenced Pasture FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS None Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS None Check ONLY one box): Moist Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5-10m Moderate 5-10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 Check ONLY one box): None 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5-10 m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0	Width Max=30 15 Crop nt)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):		S5-S277C
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attac	ch Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	_ Distance from Evaluated Stream	0.72
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	AREA. CLEARLY MARK THE SITE LO	DCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Pa	age: NRCS Soil Map Stream	Order _
County: Monroe Township / City: Washin	gton	
MISCELLANEOUS		
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 04/24/12	Quantity: 0.15	
Photograph Information:		
Elevated Turbidity? (Y/N): Canopy (% open): 20%		
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. an	nd attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:		
BIOTIC EVALUATION Performed? (Y/N): (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Print Fish Observed? (Y/N) N	nary Headwater Habitat Assessment Ma Voucher? (Y/N) es Observed? (Y/N) N Voucher? (nual) Y/N) N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM RI Include important landmarks and other features of interest for site evaluation and See Stream Assessment Form S5-S277c for site topographic map, aerial photograph, and resource pho	d a narrative description of the stream	•

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 4.5 feet

Channelized/Type: No/Natural OHWM Depth: 0.5 feet
Stream Type: Ephemeral USCOE Jurisdiction: Yes
Evaluation Type: HHEI IDEM Jurisdiction: Yes

Evaluation Score: 40 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Sand/gravel

UTME: 1777269 ft **UTMN**: 14282626 ft

Stream S5-S278a –Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	103	0.01	0.41	
5	101	0.01	0.40	
6	101	0.01	0.40	
7	101	0.01	0.40	
8	101	0.01	0.40	
RPA 8	101	0.01	0.40	

Description of Potential Impact:

Impacts to S5-S278a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S278a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

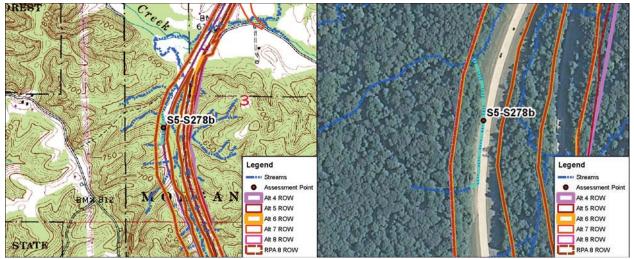


	TITIET Score (sum of metrics 1, 2, 3).
SITE NAME/LOCATION I-69 Section 5	
	65-S278a RIVER BASIN White River DRAINAGE AREA (mi²) 0.01
000	LAT. 39.32859 LONG. RIVER CODE RIVER MILE
EENOTH OF OTREAM REPORT (II)	
DATE 05/10/06 SCORER A Rogers	COMMENTS (Long60.31354) (Natural-Class II)
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructio
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER
SUBSTRATE (Estimate percent of every substruction of every substruction).	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes
•	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
	PERCENT TYPE PERCENT PO
BLDR SLABS [16 pts]	076 SIET [5 pt]
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 15% Sub
BEDROCK [16 pt]	Max Max
COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts]	20% MUCK [0 ptg]
SAND (<2 mm) [6 pts]	20% MUCK [0 pts] 0% 2 50% ARTIFICIAL [3 pts] 0%
SAND (<2 mm) [o pts]	/ITTI TOTAL [0 pto]
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage (B) (B) A
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5
- •	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of
	ad culverts or storm water pipes) (Check ONLY one box):
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 4
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 4
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box): Ba
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	L ≤ 1.0 m (<=3' 3") [5 pts]
COMMENTS OHW - 4.5' / 0.5'	AVERAGE BANKFULL WIDTH (meters): 1.37 1
	This information must also be completed
RIPARIAN ZONE AND FLOODP	· · · · · · · · · · · · · · · · · · ·
<u>RIPARIAN WIDTH</u>	FLOODPLAIN QUALITY
L R (Per Bank) Wide >10m	L R (Most Predominant per Bank) L R Mature Forest Wetland Conservation Tillage
The street series	Immature Forest Shruh or Old
Moderate 5-10m	Field Urban or Industrial
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop
□□ None	Fenced Pasture Mining or Construction
COMMENTS	I enced i asture willing of construction
· ·	aluation) (Check ONLY one box):
Stream Flowing Subsurface flow with isolated pool	Moist Channel, isolated pools, no flow (Intermittent) ols (Interstitial) Dry channel, no water (Ephemeral)
COMMENTS_	2. j statillo, no mater (Ephothoral)
	(000 ft) - f - l
	per 61 m (200 ft) of channel) (Check ONLY one box):
SINUOSITY (Number of bends p None 0.5	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0 2.0 3.0 1.5 3.0 >3
None 0.5	1.0 2.0 3.0
None 0.5 STREAM GRADIENT ESTIMATE	1.0 1.5 2.0 2.5 3.0 >3
None 0.5	1.0 2.0 3.0

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S278a
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Att	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	,
WWH Name: Bryant Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map	
County: Township / City: Wash	ington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:05/10/06	Quantity: 0.89
Photograph Information: 165 Upstream / 166 Downstream / 167 Right Bank / 168 Lef	t Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections options ID number. Include appropriate field data sheets from the P	·
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N)	Voucher? (Y/N)
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebra	
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation a	nd a narrative description of the stream's location
♠ See Stream Assessment Form	
FLOW	
S5-S278a for site topographic map,	
aerial photograph, and resource ph	lotograpns

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:SWTownship:T10NRange:R1WIDEM 303(d) List:N/AWatershed:05120201180OHWM Width:1.7 fee

Watershed: 05120201180 OHWM Width: 1.7 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.1 feet **USCOE** Jurisdiction: **Stream Type:** Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1777439 ft **UTMN**: 14282997 ft

Stream S5-S278b – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	706	0.03	0.96	
5	706	0.03	0.96	
6	706	0.03	0.96	
7	706	0.03	0.96	
8	706	0.03	0.96	

Description of Potential Impact:

Impacts to S5-S278b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to existing SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the right bank and an old field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S278b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

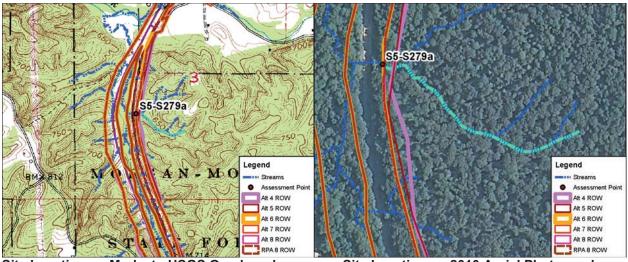


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S278b RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ff) 200 LAT. 39.32961 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51543) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECOVERING RECENT OR NO RECOVERING RECOVERING RECOVERING RECENT OR NO RECOVERING R	COVERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts]	7
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	I
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	1
3 BANK FILL WIDTH (Measured as the average of 3-4 measurements) (Check ONI V one hov):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### D.52 AVERAGE BANKFULL WIDTH (meters): ### D.52 AVERAGE BANKFULL WIDTH (meters): ### D.52 L R (Most Predominant per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVE	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moderate (S) 13' [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 1.0 m (<=3' 3") [5 pts] 2	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1¹ AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 5

ADDITIONAL STRE	EAM INFORMATION (This Information Must Als	o be Completed):		S5-S2/8D
QHEI PEI	RFORMED? - Yes V No QHEI Score	(If Yes, Atta	ch Completed QHEI Form)	
DOWNST WWH Name: B CWH Name: EWH Name:	TREAM DESIGNATED USE(S) Tryant Creek		_ Distance from Evaluated Streating Distance from Evaluated Streating Distance from Evaluated Streating	am _
	G: ATTACH COPIES OF MAPS, INCLUDING THE E		-) AREA. CLEARLY MARK THE S	SITE LOCATION
USGS Quadrangle	Name: Modesto	NRCS Soil Map P	age: NRCS Soil Map S	tream Order
County: Monroe		ship / City: Washir	ngton	
MISCELL	ANEOUS			
Base Flow Conditio	ns? (Y/N):_Y Date of last precipitation:	04/24/12	Quantity: 0.15	
Photograph Informa	ntion:			
Elevated Turbidity?	(Y/N): N Canopy (% open): 100)%		
Were samples colle	cted for water chemistry? (Y/N): _N (Note la	ab sample no. or id. a	and attach results) Lab Number:	
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cm)
	ch representative of the stream (Y/N) If no learning in the stream in th	t, please explain:		
Performed? (Y/N): _ Fish Observed? (Y/Frogs or Tadpoles (Comments Regardi	Observed? (Y/N) N Voucher? (Y/N) N Aqua	ta sheets from the Pri	mary Headwater Habitat Assessm Voucher? (Y/N)	
	WING AND NARRATIVE DESCRIPTION rtant landmarks and other features of interest fo	or site evaluation an	· ——	
FLOW -	See Stream Assessment For S5-S278b for site topogr			
	aerial photograph, and r		otographs	

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SW Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 72

UTME: 1777920 ft **UTMN**: 14282810 ft

Ν

USGS Quadrangle: Modesto Section: 3

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.2 feet
OHWM Depth: 1.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.10 sq m

Watershed Area: 0.10 sq mi
Predominant Sub: Gravel/cobble

Stream S5-S279a – Class III PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	81	0.01	0.36	
5	83	0.01	0.37	
6	23	0.01	0.09	
7	28	0.01	0.12	
8	30	0.01	0.12	
RPA 8	33	0.01	0.13	

Description of Potential Impact:

Impacts to S5-S279a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel, cobble, and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S279a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

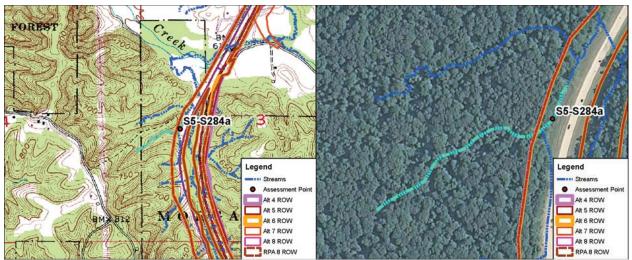


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S279a RIVER BASIN White River DRAINAGE AREA (mi²)	.10
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32909 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51373) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] DW SILT [3 pt] SW LEAF PACK/WOODY DEBRIS [3 pts] 10%	Point
BEDROCK [16 pt] 5% FINE DETRITUS [3 pts]	Substrat Max = 4
COBBLE (65-256 mm) [12 pts] 25% CLAY or HARDPAN [0 pt]	Wax - 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] 40% MUCK [0 pts] ARTIFICIAL [3 pts] 0% 0%	27
Total of Percentages of 30 00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 12	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	IVIAX-30
COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): 1.80	20
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide >10m V Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Mature Forest, Wetland Conservation Hillage Urban or Industrial	
Field — Open Pasture Pow Cri	nn
Narrow <5m Residential, Park, New Field J	υp
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent))
) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral)) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) (Check ONLY one box): 3.0) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 0.5 1.5 2.5 3.0 3.0 3.0 3.0) L
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) (Check ONLY one box): 3.0	Ĺ

ADDITIONAL STREAM	M INFORMATION (This Information Must Also	be Completed):		55-52/9a
QHEI PERF	ORMED? - Yes No QHEI Score	(If Yes, Atta	ch Completed QHEI Form))
DOWNSTRE WWH Name: Brya CWH Name: EWH Name:	EAM DESIGNATED USE(S) ant Creek		_ Distance from Evaluated _ Distance from Evaluated Distance from Evaluated	Stream _
	ATTACH COPIES OF MAPS, INCLUDING THE EI	NTIRE WATERSHED	-	
USGS Quadrangle Na	me: Modesto	NRCS Soil Map P	Page: 3 NRCS Soil N	Map Stream Order 2
County: Monroe		ship / City: Washir	ngton	
MISCELLAN	NEOUS			
Base Flow Conditions?	? (Y/N):_Y Date of last precipitation:_	05/10/06	Quantity: 0.89	
Photograph Information	404 H 4 4400 B 4 4400 B	ght Bank / 134 Left	Bank	
Elevated Turbidity? (Y	/N): _N	2%		
Were samples collecte	ed for water chemistry? (Y/N): _N (Note lal	b sample no. or id. a	and attach results) Lab Nur	mber:
	emp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmh	os/cm)
Is the sampling reach i	representative of the stream (Y/N) Y If not	, please explain:		
Additional comments/o	description of pollution impacts:			
BIOTIC EVANCE Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observed: Comments Regarding	(If Yes, Record all observations. Voucher ID number. Include appropriate field date Voucher? (Y/N) Salamanders Conserved? (Y/N) Voucher? (Y/N) Aqua	a sheets from the Prin	mary Headwater Habitat Ass Voucher? (Y/N)	
	NG AND NARRATIVE DESCRIPTION		-	
FLOW →	See Stream Assessment 1 S5-S279a for site topog aerial photograph, and	graphic ma	_	

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Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck Quarter: SW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Ephemeral Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 21

Legal Drain (Y/N): Ν

UTME: 1777445 ft **UTMN:** 14283377 ft **USGS** Quadrangle: Modesto

Section: 3 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.5 feet OHWM Depth: 0.8 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes

0.04 sq mi Watershed Area:

Predominant Sub: Silt

	Stream S5-S284a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	321	0.01	0.58	
5	319	0.01	0.56	
6	319	0.01	0.56	
7	319	0.01	0.56	
8	319	0.01	0.56	
RPA 8	319	0.01	0.56	

Description of Potential Impact:

Impacts to S5-S284a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt. There is a wide riparian corridor along the left bank and no riparian buffer along the right bank where these Alternatives cross this stream. The adjacent left bank floodplain consists of mature forest while the right floodplain is transportation. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S284a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



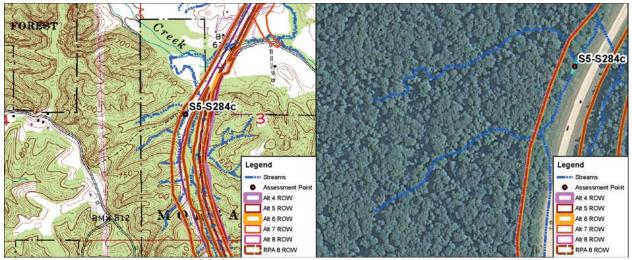
	THIEF COOLC (Sum of metrics 1, 2, 3) .
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S	5-S284a RIVER BASIN White River DRAINAGE AREA (mi²) 0.04
LENGTH OF STREAM REACH (ft) 200	LAT. 39.33065 LONG. RIVER CODE RIVER MILE
DATE 10/18/11 SCORER DEW/KS	
NOTE: Complete All Items On This Forn	n - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes
· · · · · · · · · · · · · · · · · · ·	ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
<u>TYPE</u> <u>PI</u>	ERCENT TYPE PERCENT MET
BLDR SLABS [16 pts]	0% SILT [3 pt] 90%
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0% Subst
BEDROCK [16 pt]	Max:
COBBLE (65-256 mm) [12 pts]	SEXT STRUCTURE [SE]
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts]	10% MUCK [0 pts] 0% 11
SAND (<2 mm) [0 pts]	AKTITIOIAL [5 pts]
Total of Percentages of 0	0.00% (A) Substrate Percentage
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS	TOTAL NUMBER OF SUBSTRATE TYPES: 2
SCORE OF TWO MOST PREDOMINATE SUBS	TOTAL NUMBER OF SUBSTRATE TIPES. 2
2. Maximum Pool Depth (Measure the m	paximum pool depth within the 61 meter (200 ft) evaluation reach at the time of
	d culverts or storm water pipes) (Check ONLY one box):
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 1
3. BANK FULL WIDTH (Measured as the	average of 3-4 measurements) (Check ONLY one box): Bank
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Wid
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 1.5'/0.8'	AVERAGE BANKFULL WIDTH (meters): 0.50
COMMENTS	AVEITAGE BAIRTI GEE WILD'IT (Illeters).
RIPARIAN ZONE AND FLOODP	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆
RIPARIAN WIDTH	FLOODPLAIN QUALITY
L R (Per Bank)	L R (Most Predominant per Bank) L R
✓ Wide >10m	Mature Forest, Wetland Conservation Tillage
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial
	Field Open Pasture, Row Crop
Narrow <5m	Residential, Park, New Field
None	Fenced Pasture Mining or Construction
COMMENTS	
FLOW REGIME (At Time of Eva	uluation) (Check ONLY one box):
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)
Subsurface flow with isolated poo	ols (Interstitial) Dry channel, no water (Ephemeral)
COMMENTS_	
SINUOSITY (Number of bends n	per 61 m (200 ft) of channel) (Check ONLY one box):
None None	1.0 2.0 3.0
	1.5 2.5 >3
	1.5
STREAM GRADIENT ESTIMATE	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 10%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y/
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

FLOW 7

S5-S284a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Evaluation Type: HHEI

Final Letting Section 20

Evaluation Score: 30 Legal Drain (Y/N): N

UTME: 1777568 ft **UTMN**: 14283657 ft

USGS Quadrangle:	Modesto
------------------	---------

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.8 feet
OHWM Depth: 0.6 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.04 sq m

Watershed Area: 0.04 sq mi
Predominant Sub: Silt/fine detritus

Stream S5-S284c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	80	0.01	0.11
5	80	0.01	0.10
6	80	0.01	0.10
7	80	0.01	0.10
8	80	0.01	0.10
RPA 8	80	0.01	0.10

Description of Potential Impact:

Impacts to S5-S284c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt and fine detritus. There is a wide riparian corridor along the left bank and no riparian buffer along the right bank where these Alternatives cross this stream. The adjacent left bank floodplain consists of mature forest while the right floodplain is transportation. Photographs taken upstream and downstream in the area where the Alternatives cross S5-S284c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



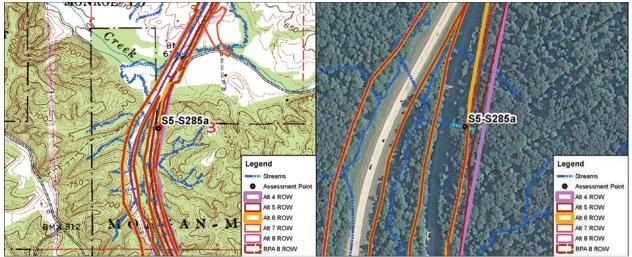
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S284c RIVER BASIN White River DRAINAGE AREA (mi²) 0.	04
LENGTH OF STREAM REACH (ft) 80 LAT. 39.33142 LONG. RIVER CODE RIVER MILE	
DATE 05/09/06 SCORER A Rogers COMMENTS (Long: -86.51496) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ictions
STREAM CHANNEL NONE / NATURAL CHANNEL PRECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS:	OVERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
TYPE PERCENT TYPE PERCENT □ □ BLDR SLABS [16 pts] 0% □ SILT [3 pt] 70%	Points
BOULDER (>256 mm) [16 pts]	Substrate
□ □ BEDROCK [16 pt] □ □ ✓ FINE DETRITUS [3 pts] 20% □ □ COBBLE (65-256 mm) [12 pts] □ □ CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] GRAVEL (2-64 mm) [9 pts] O% MUCK [0 pts]	40
SAND (<2 mm) [6 pts]	10
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
→ > 22.5 - 30 cm [30 pts] ✓ < 5 cm [5 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 3.8' / 0.6' AVERAGE BANKFULL WIDTH (meters): 1.20	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ Wide >10m	
Field	_
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	J
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
✓ None	
0.5 1.5 2.5 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft	O ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)
WWH Name: Bryant Creek Distance from Evaluated Stream
CWH Name: Distance from Evaluated Stream
EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 2
County: Monroe Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (V/N): Y Date of last precipitation: 05/09/06 Quantity: 0.01
But of last prospiration.
Photograph Information: 82 Upstream / 83 Downstream / 84 Right bank / 85 Left bank
Elevated Turbidity? (Y/N): N Canopy (% open): 20%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

FLOW -

See Stream Assessment Form S5-S284c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 12

UTME: 1778021 ft **UTMN**: 14283547 ft

Ν

USGS Quadrangle: Modesto
Section: 3
Township: T10N
IDEM 303(d) List: N/A

IDEM 303(d) List: N/A
OHWM Width: 1.5 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq

Watershed Area: 0.01 sq mi
Predominant Sub: Leaf pack/clay

Stream S5-S285a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	178	0.01	0.79
5	135	0.01	0.61
6	88	0.01	0.38
7	90	0.01	0.41
8	90	0.01	0.41
RPA 8	90	0.01	0.41

Description of Potential Impact:

Impacts to S5-S285a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of leaf pack, clay, and gravel. There is a wide riparian corridor along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S285a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



12

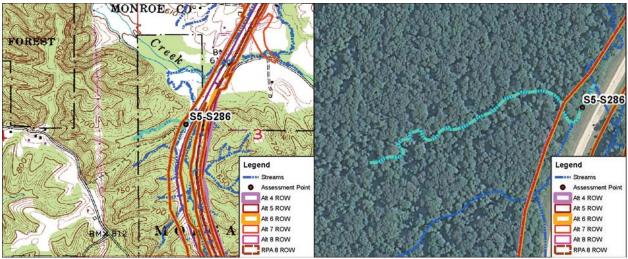
SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S285a DRAINAGE AREA (mi²) 0.01 SITE NUMBER 160 LAT. **39.33111** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long: -86.51336) (Natural-Modified Class I) J Meeker SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☑ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 35% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 30% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 25% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 10% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 4 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' /0.8' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 2.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	\$5-\$2858
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map I	Page: 3 NRCS Soil Map Stream Order
County: Monroe Township / City: Washi	ington
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y _ Date of last precipitation: 05/10/06	Quantity: 0.89
Photograph Information: 135 Upstream / 136 Downstream / 137 Right Bank / 138 Left	t Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 25%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Price Fish Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Comments Regarding Biology: N (If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Price Fish Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrate Comments Regarding Biology:	Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM I	REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation a	nd a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S285a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 58 Legal Drain (Y/N): N

UTME: 1777632 ft **UTMN**: 14283769 ft

USGS Quadrangle:	Modesto
0	0

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.2 feet
OHWM Depth: 0.3 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes

Watershed Area: 0.12 sq mi Predominant Sub: Gravel/silt

Stream S5-S286 – Class II PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	347	0.02	0.39		
5	344	0.02	0.38		
6	344	0.02	0.38		
7	344	0.02	0.38		
8	344	0.02	0.38		
RPA 8	344	0.02	0.38		

Description of Potential Impact:

Impacts to S5-S286 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel, silt and leaf pack. There is a wide riparian corridor along the left bank and a narrow riparian buffer along the right bank where these Alternatives cross this stream. The adjacent left bank floodplain consists of mature forest while the right floodplain is transportation. This stream feeds S5-S253e which was scored using QHEI. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S286 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



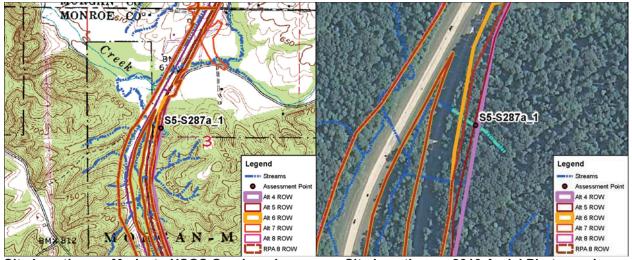
58

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S286 RIVER BASIN White River DRAINAGE AREA (mi²)	0.12
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33172 LONG. RIVER CODE RIVER MILE	
DATE 05/09/06 SCORER A Rogers COMMENTS (Long: -86.51473) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 15% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	18
Total of Percentages of 25 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 100%	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 12	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH ENDOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH ENDOTE: River Left (L) R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Rive	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m Wide >10m Mature Forest, Wetland Moderate 5-10m Noderate 5-10m Place Pacture Row Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS None Fenced Pasture Mining or Construction COMMENTS	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note Predominant per Bank) RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Wide >10 m Moderate 5-10 m None None None Fenced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream Notes (Per Bank) Wide > 10m Wide > 10m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS 1.5 m - 3.0 m (> 9' 7" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2.1 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2.1 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2.5 pts] 3.6 pts] 3.6 pts] 3.6 pts] 3.7 pts] 3.8 pts] 3.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW - 2.2' / 0.3' This information must also be completed RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream Notes (Per Bank) Wide > 10m Wide > 10m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS 1.5 m - 3.0 m (> 9' 7" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.5 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2.1 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2.1 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2.5 pts] 3.6 pts] 3.6 pts] 3.6 pts] 3.7 pts] 3.8 pts] 3.	Width Max=30 15

ADDITIONAL STREAM	M INFORMATION (This Information Must Also be Completed):	55-5200
QHEI PERF	ORMED? - Yes No QHEI Score (If Yes, Att	ach Completed QHEI Form)
WWH Name: Brya	EAM DESIGNATED USE(S) ant Creek	Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name:		Distance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	me: Modesto NRCS Soil Map I	Page: 3 NRCS Soil Map Stream Order
County: Monroe	Township / City: Washi	ington
MISCELLAN	NEOUS	
Base Flow Conditions?	? (Y/N): N _ Date of last precipitation: 05/09/06	Quantity: 0.01
Photograph Information	n:	
Elevated Turbidity? (Y	/N): N Canopy (% open): 15%	
Were samples collecte	ed for water chemistry? (Y/N): N (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach	representative of the stream (Y/N) If not, please explain:	
Additional comments/c	description of pollution impacts:	
BIOTIC EV	ALUATION	
Performed? (Y/N): _N	(If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Pr	•
Fish Observed? (Y/N) Frogs or Tadpoles Obs	served? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) ates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding	Biology:	· · · · · · · · · · · · · · · · · · ·
DRAWI	NG AND NARRATIVE DESCRIPTION OF STREAM I	REACH (This <u>must</u> be completed):
Include importa	ant landmarks and other features of interest for site evaluation a	nd a narrative description of the stream's location
FLOW →	See Stream Assessment Form	
FLOW 4	S5-S286 for site topographic map,	,
	aerial photograph, and resource p	photographs

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 37

Evaluation Score: 37 Legal Drain (Y/N): N

UTME: 1778160 ft **UTMN**: 14283837 ft

USGS Quadrangle:	Modesto
Section:	3

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.5 feet
OHWM Depth: 0.5 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Sand/gravel

Stream S5-S287a_1 – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	164	0.01	0.72		
5	141	0.01	0.61		
6	57	0.01	0.23		
7	88	0.01	0.36		
8	88	0.01	0.36		
RPA 8	88	0.01	0.37		

Description of Potential Impact:

Impacts to S5-S287a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand and gravel. There is a wide riparian corridor along both banks of this stream. The adjacent floodplain consists of mature forest. This channel flows through a culvert under SR 37 and feeds S5-S287d. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S287a_1 are on the second page of this form.



Photograph Taken Upstream

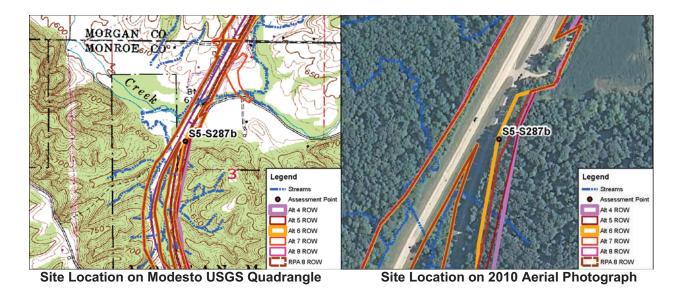


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S287a_1 RIVER BASIN White River DRAINAGE AREA (mi²)).01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33190 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51286) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECENT OR NO RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVERED RECOVERING RECENT OR NO RECOVERED	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 40
GRAVEL (2-64 mm) [9 pts] 25% MUCK [0 pts] 0%	17
SAND (<2 mm) [6 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	l
COMMENTS OHW = 3.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.07	15
	L
This information much 1 1 1 1 1 1	
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R ✓ Wide >10m ✓ Mature Forest, Wetland Conservation Tillage	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V V Wide >10m Moderate 5-10m RIPARIAN WIDTH L R (Most Predominant per Bank) L R Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Urban or Industrial	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V ✓ Wide >10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Moderate 5-10m Moderate 5-10m Wide > 10m Moderate 5-10m	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (J V V Mature Forest, Wetland Mature Forest, Shrub or Old Field Residential, Park, New Field Mining or Construction	•
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field Residential, Park New Field Nance COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Der Bank) Conservation Tillage Mining or Construction Comments Comments	•
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (J V V Mature Forest, Wetland Mature Forest, Shrub or Old Field Residential, Park, New Field Mining or Construction	L
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RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS PLOOPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A Note Left (L) and Right (R) as looking downstream A Conservation Tillage Urban or Industrial Urban or Industrial Open Pasture, Row Cr Mining or Construction Conservation Tillage Urban or Industrial Open Pasture, Row Cr Moint Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	L
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Left (L) and Right (R)	L
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream Residential, Park, New Field Conservation Tillage Urban or Industrial Open Pasture, Row Cr Mining or Construction Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): None 3.0	L
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	L :)





Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3

Quarter:NWTownship:T10NRange:R1WIDEM 303(d) List:N/AWatershed:05120201180OHWM Width:1.2 feetChannelized/Type:Yes/Concrete GutterOHWM Depth:0.2 feet

Channelized/Type:Yes/Concrete GutterOHWM Depth:0.2Stream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 12 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1778154 ft **UTMN**: 14284239 ft

Stream S5-S287b – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	101	0.01	0.57		
5	101	0.01	0.56		
6	35	0.01	0.03		
7	101	0.01	0.33		
8	101	0.01	0.33		
RPA 8	101	0.01	0.33		

Description of Potential Impact:

Impacts to S5-S287b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to existing SR 37. There is a wide riparian buffer associated with the right bank and no riparian zone along the left bank. The floodplain consists of transportation on the left bank and mature forest on the right. A photograph taken downstream in the area where these Alternatives cross S5-S287b is on the second page of this form.



Photograph Taken Downstream



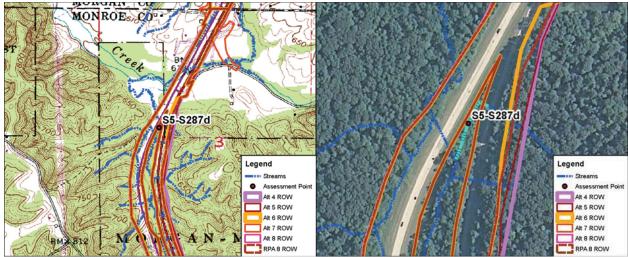
ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S287b RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 100 LAT. 39.33301 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51287) (Concrete Gutter-Modified Cla	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% DEBRIS [3 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ ☐ GRAVEL (2-64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ ☐ MUCK [0 pts] ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	_
	5
	5
This information must also be completed PIPAPIAN ZONE AND ELOODEL AIN QUALITY \$\frac{2}{2}\text{NOTE: Piver Left (L) and Pight (P) as looking downstream\$}\$	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	5
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH LR (Per Bank) LR (Most Predominant per Bank) LR	5
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RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Subsurface flow with isolated pools (Interstitial) RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Wost Predominant per Bank) L R (Most Predominant per Bank) L R (Onservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Company Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: River Left (L) and Right (R) as looking downstream Note: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A Note: A Note: A Note A Note: A No	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row Comments Flow Residential, Park, New Field Flow Residential Park Flow Residential Park	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note: River Left (L) and Right (R) as looking downstream Note: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A Note: A Note: A Note A Note: A No	rop

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_Y Date of last precipitation:
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 15%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S287b for site topographic map, aerial photograph, and resource photographs

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 25

Legal Drain (Y/N): N **UTMN:** 14283861 ft

USGS Quadrangle: Modesto Section: 3

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.2 feet
OHWM Depth: 0.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq r

Watershed Area: 0.01 sq mi Predominant Sub: Gravel/sand

Stream S5-S287d – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	371	0.01	0.00		
5	371	0.01	0.00		
6	371	0.01	0.00		
7	371	0.01	0.00		
8	371	0.01	0.00		
RPA 8	371	0.01	0.00		

Description of Potential Impact:

Impacts to S5-S287d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is located inside the bifurcated median of SR 37 and its substrate consists predominantly of gravel, sand, and leaf pack. There is a narrow riparian buffer associated with this stream. The adjacent floodplain consists of INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S287d are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



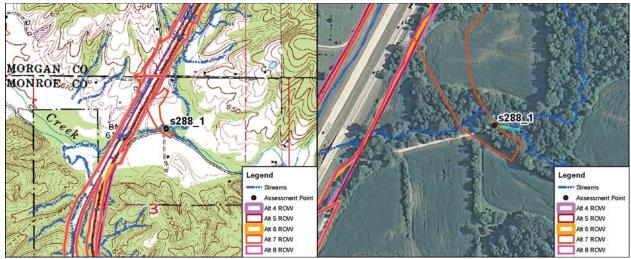
ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

	THILI GOOLE (Sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S	5-S287d RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200	LAT. 39.33197 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEV		
NOTE: Complete All Items On This Form	n - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RE	COVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
,	ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
	ERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	0% SILT [3 pt] 10%	Folin
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	0% LEAF PACK/WOODY DEBRIS [3 pts] 14% 0%	Substra
COBBLE (65-256 mm) [12 pts]	5% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2-64 mm) [9 pts]	55% MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts]	16% ARTIFICIAL [3 pts] 0%	20
T. I. (D	Culpatrata Parapataga (D)	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	5.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
		<u> </u>
• `	decimal aximum pool depth within the 61 meter (200 ft) evaluation reach at the time of d culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	linux c
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check <i>ONLY</i> one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfu Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 1.2'/0.2'	AVERAGE BANKFULL WIDTH (meters): 0.40	5
COMMILITY	AVERAGE BANKI OLE WIDTH (Illeters).	. 3
RIPARIAN ZONE AND FLOODP	This information must also be completed PLAIN QUALITY \$\text{NOTE: River Left (L) and Right (R) as looking downstream \$\text{x}}	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old V Urban or Industrial	
✓ ✓ Narrow <5m	Residential, Park, New Field Open Pasture, Row C	rop
==		
None COMMENTS	Fenced Pasture Mining or Construction	1
· ·	aluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated poo	Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)	it)
COMMENTS_	Differential, in water (Ephonicial)	
	04 (000 f) (1	
SINUOSITY (Number of bends p None	per 61 m (200 ft) of channel) (Check ONLY one box): 1.0	
0.5	1.5	
	<u> </u>	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe Severe (10 ft/	/100 ft)
		9

ADDITIONAL STREAM INI	FORMATION (This Information Must Also	be Completed):		S5-S28/Q
QHEI PERFORM	IED? - Yes ✓ No QHEI Score	(If Yes, Attac	h Completed QHEI Form)	
DOWNSTREAM WWH Name: Bryant C CWH Name:	DESIGNATED USE(S) Creek		Distance from Evaluated S Distance from Evaluated S Distance from Evaluated S	Stream _
MAPPING: ATTA	ACH COPIES OF MAPS, INCLUDING THE <u>EP</u>	NTIRE WATERSHED	AREA. CLEARLY MARK TI	HE SITE LOCATION
USGS Quadrangle Name:	Modesto	NRCS Soil Map Pa	ge: NRCS Soil Ma	ap Stream Order
County: Monroe	Towns	ship / City: Washing	gton	
MISCELLANEOU	JS			
Base Flow Conditions? (Y/I	N):_Y Date of last precipitation:_	04/24/12	Quantity: 0.15	_
Photograph Information:				
Elevated Turbidity? (Y/N): _	N Canopy (% open): 100	%		
Were samples collected for	r water chemistry? (Y/N): N (Note lal	o sample no. or id. ar	nd attach results) Lab Numb	ber:
Field Measures: Temp (Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos	s/cm)
	· · · · · · · · · · · · · · · · · · ·	please explain:		
Additional comments/descr	ription of pollution impacts:			
	(If Yes, Record all observations. Voucher ID number. Include appropriate field data Voucher? (Y/N) Salamanders Ced? (Y/N) Voucher? (Y/N) Aqua	observed? (Y/N) Note: Macroinvertebrate	Voucher? (Y/N) N s Observed? (Y/N) N V	oucher? (Y/N) N completed):
See S5-	Stream Assessment For S287d for site topogra ial photograph, and re	rm aphic map,		

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: ΝE Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 8.4 feet

Channelized/Type: No/Natural OHWM Depth: 0.8 feet Stream Type: Ephemeral USCOE Jurisdiction: Yes Evaluation Type: HHEI IDEM Jurisdiction: Yes

Evaluation Score:37Watershed Area:0.01 sq miLegal Drain (Y/N):NPredominant Sub:Sand/gravel

UTME: 1779392 ft **UTMN**: 14285229 ft

Stream S5-S288_1 – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	0	0.00	0.00		
5	0	0.00	0.00		
6	0	0.00	0.00		
7	50	0.01	0.00		
8	0	0.00	0.00		
RPA 8	0	0.00	0.00		

Description of Potential Impact:

Impacts to S5-S288_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor consisting of immature forest on the right bank and a moderately wide riparian corridor on the left bank consisting mostly of transportation use. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S288_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

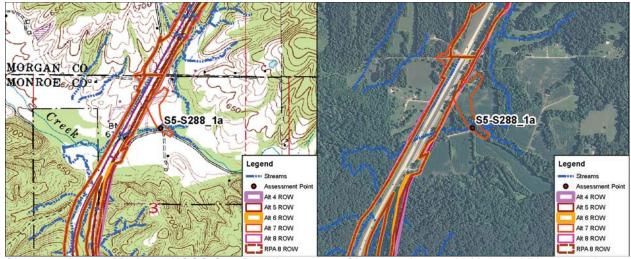


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S288_1 RIVER BASIN White River DRAINAGE AREA (mi²)	5.72
LENGTH OF STREAM REACH (ft) 191 LAT. 39.33570 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.50847) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts] 0%	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 40% MUCK [0 pts] 0%	17
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B) 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
▶ 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS Old Meadow MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 2.80	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 2.80 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10m Mature Forest, Wetland Moderate 5-10m Noderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 2.80 L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Onen Pasture Pow Conservation Pow Conservation Pow Conservation Field	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m AVERAGE BANKFULL WIDTH (meters): 2.80 L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Onen Pasture Pow Conservation Pow Conservation Pow Conservation Field	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30 20
> 4.0 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Wetland Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Nor weter (2 3' 3" 15 pts] >1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] >1.0 m (<=3' 3") [5 pts] X	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'70.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Plank) RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m None Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 2.0 3.0	Width Max=30 20
2.40 meters (> 13') [30 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30 20

		=		S5-S288 1
ADDITIONAL STREAM	INFORMATION (This Information	Must Also be Completed):	<u>!</u>	_
QHEI PERFO	PRMED? - Yes V No QHEIS	core (If Yes, A	ttach Completed QHEI Form	m)
DOWNSTREA	AM DESIGNATED USE(S)			
WWH Name: Bryan	nt Creek		Distance from Evaluat	ed Stream
CWH Name: _			Distance from Evaluate	ed Stream _
EWH Name:			Distance from Evaluate	ed Stream
MAPPING: A	TTACH COPIES OF MAPS, INCLUDIN	NG THE <u>ENTIRE</u> WATERSH	ED AREA. CLEARLY MARI	THE SITE LOCATION
USGS Quadrangle Nam	ne: Modesto	NRCS Soil Map	Page: NRCS Soi	Map Stream Order
County: Monroe		Township / City: Was	hington	
MISCELLANI	EOUS			
Base Flow Conditions?	(Y/N):_N Date of last precipit	ation: 06/30/12	Quantity: 0.00	
Photograph Information	P35 - Down, P36 - Up			
Elevated Turbidity? (Y/N	AL	10%		
Were samples collected	d for water chemistry? (Y/N): _N	_ (Note lab sample no. or id	I. and attach results) Lab N	umber:
	np (°C) Dissolved Oxygen (ı	mg/l) pH (S.U.)	Conductivity (µm	hos/cm)
Is the sampling reach re	epresentative of the stream (Y/N)	If not, please explain:		
is the sampling reason re	ppresentative of the stream (1714)	ii not, piedoe expidini		
Additional comments/de	escription of pollution impacts:			
BIOTIC EVA	LUATION			
N	LOATION			
Performed? (Y/N): _	(If Yes, Record all observation ID number. Include appropria	·		eles must be labeled with the site
				ssessifient wandar)
Fish Observed? (Y/N)	Voucher? (Y/N) N Salar erved? (Y/N) N Voucher? (Y/N)	manders Observed? (Y/N)	Voucher? (Y/N)	Voucher? (Y/N)
Comments Regarding E		, iqualio maolomivortos	N	V Gustier : (1714)
Comments regarding E	nology.			
DRAWIN	IG AND NARRATIVE DESCR	DIDTION OF STREAM	DEACH (This must I	ac completed):
			-	
include importan	it landmarks and other features of i	interest for site evaluation	and a narrative description	i of the stream's location
▲ Ç	ee Stream Assessme	ent Form		
FLOW T	5-S288 1 for site		an.	
	_		_	
a	erial photograph,	and resource [piiocograpiis	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NE
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 26

Legal Drain (Y/N): N **UTMN:** 14285223 ft

USGS Quadrangle: Modesto Section: 3

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.9 feet
OHWM Depth: 1.1 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.09 sq

Watershed Area: 0.09 sq mi Predominant Sub: Artificial/clay

Stream S5-S288_1a – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	0	0.00	0.00		
5	0	0.00	0.00		
6	0	0.00	0.00		
7	52	0.01	0.00		
8	0	0.00	0.00		
RPA 8	0	0.00	0.00		

Description of Potential Impact:

Impacts to S5-S288_1a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This recovered channel consists of artificial river rock over clay. There is a wide riparian buffer along both banks of the channel, which is situated in between East Bryant Creek Road and Bryant Creek. The adjacent floodplain consists of mature forest along both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S288_1a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

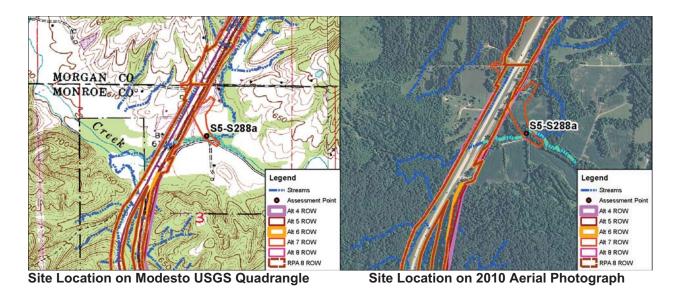
26

SITE NAME/LOCATION I-69 Section 5 S5-S288_1a RIVER BASIN White River DRAINAGE AREA (mi²) 0.09 SITE NUMBER 52 LAT. 39.33569 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE **04/25/12** COMMENTS (Long: -86.50890) (Natural-Class I) KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 30% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 6 10% 60% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 5 2 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.9'/1.1' AVERAGE BANKFULL WIDTH (meters): 1.20 15 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)



See Stream Assessment Form S5-S288_1a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource:StreamUSGS Quadrangle:ModestoStream Name:Bryant CreekSection:3

 Quarter:
 NW
 Township:
 T10N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120201180
 OHWM Width:
 35.0 feet

Channelized:NoOHWM Depth:4.0 feetStream Type:PerennialUSCOE Jurisdiction:YesEvaluation Type:QHEIIDEM Jurisdiction:Yes

Evaluation Score: 66.5 **Watershed Area:** 5.72 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Gravel

UTME: 1779269 ft **UTMN**: 14285262 ft

Stream S5-S288a – Warm Water Habitat					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	120	0.10	0.06		
5	176	0.14	0.07		
6	116	0.09	0.06		
7	300	0.24	0.77		
8	108	0.09	0.06		
RPA 8	108	0.09	0.06		

Description of Potential Impact:

Impacts to S5-S288a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. At the time of evaluation, this stream is a perennial stream with excellent habitat development and high sinuosity where the Alternatives cross this stream. The predominant substrate is gravel. The stream has a wide riparian corridor associated with its right bank and a narrow riparian buffer along its left bank. The adjacent floodplain is dominated by forest land on the right and transportation (East Bryant Creek Road) on the left. Photographs taken upstream and downstream in the area where the proposed alternatives cross S5-S288a are on the second page of this form. Implementation of RPA 8 will decrease the amount of impacts at this location.



Photograph Taken Upstream

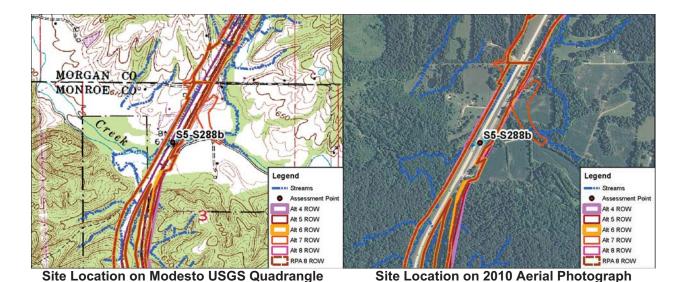


Photograph Taken Downstream

HOEM	Sample #		bioSample #	Stream Name		Location	
1	-	Sample Date	County	Macro Sample Type	M.Habitat	-	
T	KSS CKW		Monroe	Practo Sample Type	Complete	QHEI Score:	66.5
EDONTHIA REPORTED TO SELECTION OF SELECTION	BEST TYPES LDR/SLABS [10 OULDER [9] OBBLE [8] RAVEL [7] AND [6] EDROCK [5]	P R P R D D D SO	P R HARDPAN[DETRITUS[MUCK[2] SILT[2] ARTIFICIAL (Score natura	P R LIME P R LIME TILLS TIL	STONE [1] [1] [1] ANDS [0] PAN [0] STONE [0] RAP [0] STRINE [0]	QUALITY QUALITY QUALITY HEAVY [-2] MODERATE [-1] NORMAL [0] EXTENSIVE [-2] MODERATE [-1] NORMAL [0] NONE [1]	Substrat
Jality: 1 Jality in lat is st	2-Moderate and moderate or g able, well devel et UNDERCUT BA OVERHANGIN	ounts, but not of h reater amounts (e oped root wad in o NKS [1] G VEGETATION [1 I SLOW WATER) [ighest quality or in sign, very large bould deep/fast water, or one in the Amount POOLS:	ADS[1] AQUATEC	r; 3-Highest diameter log	Check ONE (Or 2 & EXTENSIVE > 75 MODERATE 25- SPARSE 5 - < 25 [1] NEARLY ABSENT [1] Cov Maximu	average) 5% [11] 75% [7] % [3] < 5% [1 er]
omn	nents					4	
HIGH MOD LOW NON Comm	OSITY H[4] DERATE[3] V[2] HE[1] Hents	DEVELO SECOLO GOOD FAIR [3] POOR [N AND RIPAL RIPAL N WIDE NARR	PMENT ENT[7] [5] [1] RIAN ZONE Che	FOREST, SWAMP [3] SHRUB OR OLD FIELD RESIDENTIAL, PARK, N FENCED PASTURE [1]	CH BANK (Or 2 p ALITY [2] [EW FIELD [1] Indice	er bank & average) L R CONSERVATION TIL MINING /CONSTRU TE predominant land use(s)	LAGE[1] RIAL[0] ICTION[0]
		□□ NONE		OPEN PASTURE, ROW		00m riparian. Riparia	m 65
omm	ente	2+3+15				Maximu	m
Check Check CA > Check CA > Committee Indict of rift BESS BESS BESS	OL/GLIDE / IMUM DEPT ONE (ONLY!) Im[6] 7- <im[4] 0.2m[0]="" 2-<0.4m[1]="" 4-<0.7m[2]="" ate="" ents="" for="" functional<="" functionalis-obligate="" specific="" specific-obligate="" td=""><td>CHAN Check ONI Check ONI POOL WI POOL WI POOL WI POOL WI REPOOL WI</td><td>EPTH F</td><td>CURRENT V Check ALL to TH [2] TORRENTIAL [-1] TH [1] VERY FAST [1] TH [0] FAST [1] MODERATE [1] Indicate Ugh to support a population Check ONE (Or 2 & average) RIFFLE/RUN SUBSTRA STABLE (e.g., Cobble, Boulds</td><td>TE RIFFL Taxe0[1]</td><td>Recreation Re(Circle one and com Rimary Com TAL [-1] Secondary TENT [-2] Poor Current Is and offices. Maximu</td><td>otential ment on bac prized Contact // nt mic=0] NESS</td></im[4]>	CHAN Check ONI Check ONI POOL WI POOL WI POOL WI POOL WI REPOOL WI	EPTH F	CURRENT V Check ALL to TH [2] TORRENTIAL [-1] TH [1] VERY FAST [1] TH [0] FAST [1] MODERATE [1] Indicate Ugh to support a population Check ONE (Or 2 & average) RIFFLE/RUN SUBSTRA STABLE (e.g., Cobble, Boulds	TE RIFFL Taxe0[1]	Recreation Re(Circle one and com Rimary Com TAL [-1] Secondary TENT [-2] Poor Current Is and offices. Maximu	otential ment on bac prized Contact // nt mic=0] NESS
	ents		IT VEDVICAL	OWID_C PARODIA	30 3 04611	DE: Control	81
	ADIENT (?	(4 ft/mi) (5.37 mi²)	☐ VERY LOW -1 ☐ MODERATE [6	5-10]	30 %GLI	Maximu	

(10:39) OHM - 32, x H. IDEM 07/06/10

	Stream Name	Creek Lacation	
urveyor Sample Date	County	Mecro SampiaType X Habitat Complete	QHEI Score 665
Impacts/Miscella	aneous	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	
200000	pacts (Check all that apply)	Miscellaneous QH	El information
None Industrial WWTP Agricultural Uvestock Silvicultura Construction Urban Runoff Polistian Impact Comm		Assthutic rating (1-10): 4 % Ric	le: Ho is reach representative of stream?
77.50 (12.00)			
	, S	1000	



Aquatic Resource:StreamUSGS Quadrangle:ModestoStream Name:Bryant CreekSection:3

Quarter: NW Township: T10N
Range: R1W IDEM 303(d) List: N/A
Watershed: 05120201180 OHWM Width: 35.0 feet

Channelized: No **OHWM Depth:** 4.0 feet Stream Type: Perennial **USCOE Jurisdiction:** Yes **Evaluation Type: IDEM Jurisdiction:** QHEI Yes **Evaluation Score:** 64 Watershed Area: 5.72 sq mi

Legal Drain (Y/N): N Predominant Sub: Gravel

UTME: 1778499 ft **UTMN**: 14285084 ft

Stream S5_S288b– Warm Water Habitat					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	199	0.09	0.00		
5	199	0.09	0.00		
6	199	0.09	0.00		
7	199	0.09	0.00		
8	199	0.09	0.00		
RPA 8	199	0.09	0.00		

Description of Potential Impact:

Impacts to S5_S288b at this location for the Alternatives are listed in the table above. Segments S5_S288b and S5_S288c were evaluated together. At the time of evaluation, this stream is a perennial stream with fair habitat development and moderate sinuosity where these Alternatives cross this stream. The predominant substrate is gravel. The stream has a narrow riparian corridor associated with both its banks. The adjacent floodplain is dominated by forest land. Photographs taken upstream and downstream in the area where the proposed alternatives cross S5_S288c are on the second page of this form. All of the Alternatives possess similar impacts at this location.



Photograph Taken Upstream

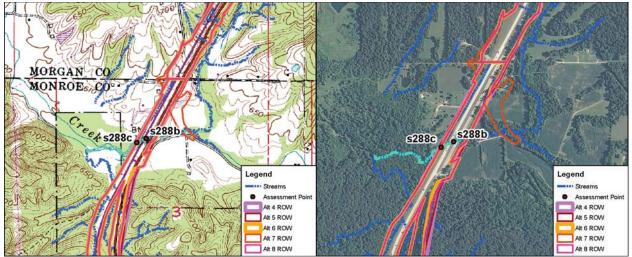


Photograph Taken Downstream

Sec5-1286, C

Sample # bioSai	nole #	Stream Name	THE PROPERTY AND ADDRESS OF THE PARTY.	Loca	fion	Control of the Contro
	A CONTRACTOR OF THE CONTRACTOR	1 Brian	t creek	Lines	C SR - 37	bodge
Surveyor Sample Date	County		Macro Sample	Type Habitat	(2 2hm 0)	
6/29/05			1079 1 3 3 3 3 3 3	Complete		QHEI Score: 6
1-Substrate (20 p			-	I de servicio	Su	bstrate Score: [/
Check 1 Predomina			te 1	Substrate Ovallay Id	And the second second	heck 2 and AVERAGE)
Chack all that are pro	The second second	P≈Pool, R	ACCOUNTS NOT THE PARTY OF THE P	crows rate supplier (c)		Section of the sectio
	resent	Predominant	Present	[]Limestone(1)	Substrate Or	A THE PART OF STREET AND ADDRESS.
P R	PR	P R	PR	Tills(1)	Hardpan(0)	THE RESERVE OF THE PARTY OF THE
☐ ☐ Bldrs/Slabs(10)	rifi	☐ Nardpan(4		Wetlands(0)	Rip/Rap(0)	Coal fines(-2)
□ □ Boulders(9)	7	Detritus(3	Control of the Contro	Silt Cover	Turkstrakini	Embeddedness
Cobble(8)	VV	Mucki2)	Titl	Silt heavy[-2	0 1	Extensive(-2)
V Gravel(7)	HIGH	□ □ Siluzi	EF I	Silt moderat	Charles HE	Moderate(-1)
□□Sand(6)	K	Studge(1)	DE I	Silt normal(0	STATE OF THE PARTY	Low/Normal(0)
☐ ☐ Bedrock(5)	CID	Artificial(0	170	Stit free(1)	-01	None(1)
IOTE: ignore studge orig	gipating fo	om point 524	substrates pre	The second secon		The same of the sa
ources; score based on		Contract of the second	ments:		-	
2-Instream Cover	r (20 pc	ints mavimu	m		Instru	m Cover Score: 17
Type (check ALL that at		Tractification of the second	100			
Undercut banks(1)	EDIA)	Deep pools(2)	Oxbows(1			ly 1, or 2 and AVERAGE salve >75% (11)
Overhanging vegetati	(nn/t)	Roofwads(1)		acrophytes(1)	2.0000000000000000000000000000000000000	erate 25-75% (7)
Shallows(In slow water	30 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Boulders(1)		woody debris(1)	The second second	se 5-25% (3)
ATTENDED TO STATE OF THE STATE	Comments		Changa	moody aconstity		y absent <5% (1)
	14.000	10	-			
-Channel Morph	lolegy ((20) (check only	one has calego	ry, OR two and AVE	RAGE) (Channel Score: 3
The second second	dopment	Channelization	an .	Stability	Modifications/0	ther
THE PARTY OF THE P	xcellent (7)	7. 2.502000000000			Snagging	Impound
	ood (5)	Recovered	200 Th.	Moderate (2)	Relocation	Islands
Control of the Contro	air (3)	Recovering	The state of the s	CLOW (1) /1 5	Ganopy Rem	The state of the s
	nor(1)		no recovery (1)		Dredging	☐ Bank shapin
		nd Impstracer	The second secon		One side cha	nnel modifications
-Riparian Zone 8	& Bank	Erosion (10)	points ma	ximum)	F	Riparian Score: 4
Left/Right banks looki	ing downs	tream (For each ca	tegory, check	only one per bank, O	R two per bank	and AVERAGE).
Riperian width		slon/Runolf-Floodp		A CONTRACTOR OF THE PARTY OF TH		Bank Erosion
L R (perbank)	LI	(most predomina	int per bank)	LR		L R (per bank)
☐ Wide >50m (4)	लिह	Forest, Swamp (3)	Conservatio	in Tillage (1)	None or little (3)
Moderate 10-50m (Process and the same and	Shrub or Old field	4.50.00	U Utban or inc		☐ ☐ Moderate (2)
Narrow 5-10m (2)	CHE	Residential, Park,	New field (1)	Mining, Con	struction (0)	T Heavy/Severe (1)
☐ Very narrow <5m (1	1)	Fenced pasture (1	115	Open Pastu	re/Rowcrop (0)	STREET, MISSEL WAS IN
None (0) Co	mments:					
a-Pool/Glide Qua	ality (12	points maxi	mum		Poo	ol/Glide Score: 9
Max pool depth (check o	one)	Morphology (che	sk only one,	Pani/Run/Riffle		y (check all that apply)
[\sim (6)	CONT.	OR check two and	AVERAGE	Eddies (1)		Forrential (-1)
0.7-1m (4)		Pool width > rit	la width (2)	[Fast (1)		filezstitial (-1)
0.4-0.7m (2)		Pool width = riff	The state of the s	Moderate (1)	A TOTAL OF THE PARTY OF THE PAR	ntermittent (-2)
0.2-0.4m (1)		Pool width < rift		[Slow (1)	1.000	la poal (0)
THE WAY AND ADDRESS OF THE PARTY OF THE PART	Comme	A STATE OF THE PARTY OF THE PAR	o residence			- Andrews of the second
<0.2m (pool=0)	lily (8)	Coback astrone	ar estaden. O	Davin and Avenage	y	Galban Carres F.
	1117 101	200		R two and AVERAGE		fle/Run Score: 2
b-Riffle/Run Qua	man Report of		hstrate	ALC: AND ADDRESS OF THE PARTY O	(lle/run embedd	The second secon
b-Riffle/Run Qua Riffle/run depth (check o	ne)	Riffle/nun su	C. W. Land and Co.			
b-Riffle/Run Qua Riffle/run depth [check or Generally>10cm, Max>	ne) 50cm (4)	☐Stable-e.	g, cobble, hou		Extensive (-1)	Shonnat/Low (1)
b-Riffle/Run Qua Riffle/run depth [check or Generally>10cm, Max> Generally>10cm, Max<	ne) 50cm (4)	Stable e.	olo-e.g. pea gra	rvel (1) . C	Moderate (0)	None (2)
b-Riffle/Run Qua Riffle/run depth (check or Generally>10cm, Max> Generally>10cm, Max	ne) 50cm (4) 50cm(3)	Stable e, Mod. stal Mostable		rvel (1) . C		
b-Riffle/Run Qua Riffle/run depth (check or Generally>10cm, Max> Generally>10cm, Max< Generally S-10cm (1) Generally<5cm (riffle=0	ne) 50cm (4) 30cm(3) (5)	Stable e, Mod. stable Vinstable	olo-e.g. pea gra	rvel (1) . C		None (2)
b-Riffle/Run Qua Riffle/run depth [check or Generally>10cm, Max>	ne) 50cm (4) 30cm(3) (5)	Stable e, Mod. stable Vinstable	olo-e.g. pea gra	rvel (1) . C	Moderate (0)	None (2)

npin# bioSamp			Location		ACCUPANCE STATE
	? BNAN	IT CREEK		SR37	
	County	Macro SampleType	[] Habitat	QHEI S	Score: 7 d
16/29/2025	MORGAN		Complete	5 3 Jan 2	127.
pacts/Miscellar	eous	10.00.00 S.EU	the lates were		y .
Major Suspected Impa	cts (Check all that apply	a)	Miscellaneous O	(E) Information	
None	Suburban	Subjective radii	ng (1-10): 7 % FG	ffle: 30 is reach	representative
[]]Industrial	Channelization		700 - V		m? 428
□ wwrp	Riparian Removal	Acstretic rate	ng (1-10): 7 % F	ide: 10 =-	0
Apricultural	Flow Alteration	Canopy Cover (% Open}[70] % P	ool: [35]	
Livesteck	CSOs	General OHE! Not	les:		
Silviculture Construction	[_]Mining [_]Landfills				
Urban Runoff	☐ Natural		20		
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Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS Quadrangle:** Modesto Stream Name: **Bryant Creek** Section: 3 Quarter: NW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 35.0 feet Channelized: **OHWM Depth:** 4.0 feet No **Stream Type:** Perennial **USCOE Jurisdiction:** Yes **Evaluation Type: IDEM Jurisdiction:** QHEI Yes **Evaluation Score:** 64 Watershed Area: 5.72 sq mi Legal Drain (Y/N): Ν **Predominant Sub:** Gravel

UTME: 1778499 ft **UTMN**: 14285084 ft

Stream S5_S288c – Warm Water Habitat					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	161	0.07	0.01		
5	159	0.07	0.01		
6	140	0.06	0.00		
7	140	0.06	0.00		
8	140	0.06	0.00		
RPA 8	140	0.06	0.00		

Description of Potential Impact:

Impacts to S5_S288c at this location for the Alternatives are listed in the table above. Segments S5_S288b and S5_S288c were evaluated together. At the time of evaluation, this stream is a perennial stream with fair habitat development and moderate sinuosity where these Alternatives cross this stream. The predominant substrate is gravel. The stream has a narrow riparian corridor associated with both its banks. The adjacent floodplain is dominated by forest land. Photographs taken upstream and downstream in the area where the proposed alternatives cross S5_S288c are on the second page of this form. Implementation of RPA 8 will decrease the amount of impacts at this location.



Photograph Taken Upstream

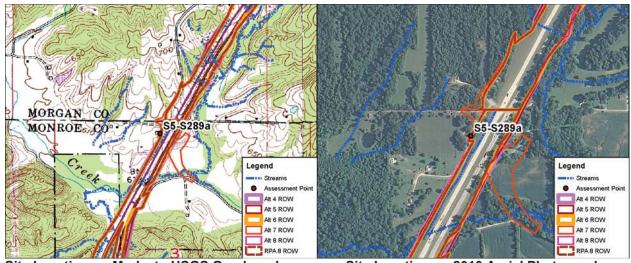


Photograph Taken Downstream

Sec5-1286, C

Sample # bioSai	nole #	Stream Name	THE PROPERTY AND ADDRESS OF THE PARTY.	Loca	fion	Control of the Contro
	A CONTRACTOR OF THE CONTRACTOR	1 Brian	t creek	Lines	C SR - 37	bodge
Surveyor Sample Date	County		Macro Sample	Type Habitat	(2 2hm 0)	
6/29/05			1079 1 3 3 3 3 3 3	Complete		QHEI Score: 6
1-Substrate (20 p			-	I de servicio	Su	bstrate Score: [/
Check 1 Predomina			te I	Substrate Ovallay Id	And the second second	heck 2 and AVERAGE)
Chack all that are pro	The second second	P≈Pool, R	ACCOUNTS NOT THE PARTY OF THE P	crows rate supplier (c)		Section of the sectio
	resent	Predominant	Present	[]Limestone(1)	Substrate Or	A THE PART OF STREET AND ADDRESS.
P R	PR	P R	PR	Tills(1)	Hardpan(0)	THE RESERVE OF THE PARTY OF THE
☐ ☐ Bldrs/Slabs(10)	rifi	☐ Nardpan(4		Wetlands(0)	Rip/Rap(0)	Coal fines(-2)
□ □ Boulders(9)	7	Detritus(3	Control of the Contro	Silt Cover	Turkstrakini	Embeddedness
Cobble(8)	VV	Mucki2)	Titl	Silt heavy[-2	0 1	Extensive(-2)
V Gravel(7)	HIGH	□ □ Siluzi	EF I	Silt moderat	Charles HE	Moderate(-1)
□□Sano(6)	K	Studge(1)	DE I	Silt normal(0	STATE OF THE PARTY	Low/Normal(0)
☐ ☐ Bedrock(5)	CID	Artificial(0	170	Stit free(1)	-01	None(1)
IOTE: ignore studge orig	gipating fo	om point 524	substrates pre	The second secon		The same of the sa
ources; score based on		Contract of the second	ments:		-	
2-Instream Cover	r (20 pc	ints maximu	m		Instru	m Cover Score: 17
Type (check ALL that at		Tractification of the second	100			
Undercut banks(1)	EDIA)	Deep pools(2)	Oxbows(1			ly 1, or 2 and AVERAGE salve >75% (11)
Overhanging vegetati	(nn/t)	Roofwads(1)		acrophytes(1)	2.0000000000000000000000000000000000000	erate 25-75% (7)
Shallows(In slow water	30 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	Boulders(1)		woody debris(1)	The second second	se 5-25% (3)
ATTENDED TO STATE OF THE STATE	Comments		Changa	moody aconstity		y absent <5% (1)
	14.000	10	-			
-Channel Morph	lolegy ((20) (check only	one has calego	ry, OR two and AVE	RAGE) (Channel Score: 3
The second second	dopment	Channelization	an .	Stability	Modifications/0	ther
THE PARTY OF THE P	xcellent (7)	7. 2.502000000000			Snagging	Impound
	ood (5)	Recovered	200 Th.	Moderate (2)	Relocation	Islands
Control of the Contro	air (3)	Recovering	The state of the s	CLOW (1) /1 5	Ganopy Rem	The state of the s
	nor(1)		no recovery (1)		Dredging	☐ Bank shapin
		nd Impstracer	The second secon		One side cha	nnel modifications
-Riparian Zone 8	& Bank	Erosion (10)	points ma	ximum)	F	Riparian Score: 4
Left/Right banks looki	ing downs	tream (For each ca	tegory, check	only one per bank, O	R two per bank	and AVERAGE).
Riperian width		slon/Runolf-Floodp		A CONTRACTOR OF THE PARTY OF TH		Bank Erosion
L R (perbank)	LI	(most predomina	int per bank)	LR		L R (per bank)
☐ Wide >50m (4)	लिह	Forest, Swamp (3)	Conservatio	in Tillage (1)	None or little (3)
Moderate 10-50m (Process and the same and	Shrub or Old field	4.50.00	U Utban or inc		☐ ☐ Moderate (2)
Narrow 5-10m (2)	CHE	Residential, Park,	New field (1)	Mining, Con	struction (0)	T Heavy/Severe (1)
☐ Very narrow <5m (1	1)	Fenced pasture (1	115	Open Pastu	re/Rowcrop (0)	STREET, MISSEL WAS IN
None (0) Co	mments:					
a-Pool/Glide Qua	ality (12	points maxi	mum		Poo	ol/Glide Score: 9
Max pool depth (check o	one)	Morphology (che	sk only one,	Pani/Run/Riffle		y (check all that apply)
[\sim (6)	CONT.	OR check two and	AVERAGE	Eddies (1)		Forrential (-1)
0.7-1m (4)		Pool width > rit	la width (2)	[Fast (1)		filezstitial (-1)
0.4-0.7m (2)		Pool width = riff	The state of the s	Moderate (1)	A TOTAL OF THE PARTY OF THE PAR	ntermittent (-2)
0.2-0.4m (1)		Pool width < rift		[Slow (1)	1.000	la poal (0)
THE WAY AND ADDRESS OF THE PARTY OF THE PART	Comme	A STATE OF THE PARTY OF THE PAR	o residence			- Andrews of the second
<0.2m (pool=0)	lily (8)	Coback astrone	ar estaden. O	Dawn and Avenage	y	Galban Carres F.
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b-Riffle/Run Qua	man Report of		hstrate	ALC: AND ADDRESS OF THE PARTY O	(lle/run embedd	The second secon
b-Riffle/Run Qua Riffle/run depth (check o	ne)	Riffle/nun su	C. W. Land and Co.			
b-Riffle/Run Qua Riffle/run depth [check or Generally>10cm, Max>	ne) 50cm (4)	☐Stable-e.	g, cobble, hou		Extensive (-1)	Shonnat/Low (1)
b-Riffle/Run Qua Riffle/run depth [check or Generally>10cm, Max> Generally>10cm, Max<	ne) 50cm (4)	Stable e.	olo-e.g. pea gra	rvel (1) . C	Moderate (0)	None (2)
b-Riffle/Run Qua Riffle/run depth (check or Generally>10cm, Max> Generally>10cm, Max	ne) 50cm (4) 50cm(3)	Stable e, Mod. stal Mostable		rvel (1) . C		
b-Riffle/Run Qua Riffle/run depth (check or Generally>10cm, Max> Generally>10cm, Max< Generally S-10cm (1) Generally<5cm (riffle=0	ne) 50cm (4) 30cm(3) (5)	Stable e, Mod. stable Vinstable	olo-e.g. pea gra	rvel (1) . C		None (2)
b-Riffle/Run Qua Riffle/run depth [check or Generally>10cm, Max>	ne) 50cm (4) 30cm(3) (5)	Stable e, Mod. stable Vinstable	olo-e.g. pea gra	rvel (1) . C	Moderate (0)	None (2)

npin# bioSamp			Location		ACCUPANCE STATE
	? BNAN	IT CREEK		SR37	
	County	Macro SampleType	[] Habitat	QHEI S	Score: 7 d
16/29/2025	MORGAN		Complete	5 3 Jan 2	127.
pacts/Miscellar	eous	10.00.00 S.EU	the lates were		y .
Major Suspected Impa	cts (Check all that apply	a)	Miscellaneous O	(E) Information	
None	Suburban	Subjective radii	ng (1-10): 7 % FG	ffle: 30 Is reach	representative
[]]Industrial	Channelization		700 - V		m? 428
□ wwrp	Riparian Removal	Acsinetic ratu	ng (1-10): 7 % F	ide: 10 =-	0
Apricultural	Flow Alteration	Canopy Cover (% Open}[70] % P	ool: [35]	
Livesteck	CSOs	General OHE! Not	les:		
Silviculture Construction	[_]Mining [_]Landfills			988488888888	
Urban Runoff	☐ Natural		20		
oliction Impact Commer					10 10
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Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NE Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 25

Legal Drain (Y/N): N

UTME: 1778813 ft **UTMN**: 14286060 ft

USUS Quadrangle.	เขเบนยรเบ
Section:	3
Taumahini	TAON

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.7 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.05 sq.

Watershed Area: 0.05 sq mi Predominant Sub: Gravel/silt

Stream S5-S289a – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	17	0.01	0.00		
5	8	0.01	0.00		
6	8	0.01	0.00		
7	107	0.01	0.14		
8	8	0.01	0.00		
RPA 8	8	0.01	0.00		

Description of Potential Impact:

Impacts to S5-S289a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel, silt, and muck. There is no riparian buffer associated with this channel. The floodplain consists of residential land along the right floodplain area and transportation (North Turkey Track Road) along the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



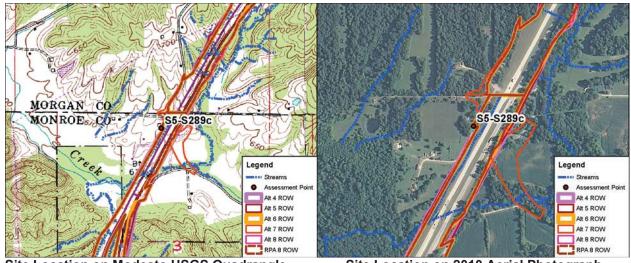
ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

	THIEF COOLS (Sum of metrics 1, 2, 3) :
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S	55-S289a RIVER BASIN White River DRAINAGE AREA (mi²) 0.05
LENGTH OF STREAM REACH (ft) 180	LAT. 39.33800 LONG. RIVER CODE RIVER MILE
DATE 04/26/12 SCORER KSS/DE	
	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction
NOTE. Complete All Items On This For	II - Refer to Freid Evaluation Manual for Offices Priver Streams for instruction
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVER
, , , , , , , , , , , , , , , , , , , ,	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes
,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
TYPE P BLDR SLABS [16 pts]	PERCENT TYPE PERCENT 39%
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0%
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0% Sub
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%
GRAVEL (2-64 mm) [9 pts]	41% MUCK [0 pts] 20%
SAND (<2 mm) [6 pts]	0% ARTIFICIAL [3 pts] 0%
Total of Percentages of	0.00% (A) Substrate Percentage 100% (B) A
Bldr Slabs, Boulder, Cobble, Bedrock _	Check 100%
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3
2. Maximum Pool Depth (Measure the m	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of
evaluation. Avoid plunge pools from roa	d culverts or storm water pipes) (Check ONLY one box):
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 4
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	✓ ≤ 1.0 m (<=3' 3") [5 pts]
COMMENTS OHW = 1.7'/0.4'	AVERAGE BANKFULL WIDTH (meters): 0.52
	This information must also be completed
RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY
L R (Per Bank)	L R (Most Predominant per Bank) L R
Wide >10m	Mature Forest, Wetland Conservation Tillage
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial
	Field Open Pasture, Row Crop
Narrow <5m	Residential, Park, New Field
✓ None COMMENTS	Fenced Pasture Mining or Construction
COMMENTS	
FLOW REGIME (At Time of Eva	aluation) (Check ONLY one box):
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)
Subsurface flow with isolated poor COMMENTS_	ols (Interstitial) Dry channel, no water (Ephemeral)
	04 (000 f) (1
	per 61 m (200 ft) of channel) <u>(Check ONLY</u> one box):
I'I None	
None 0.5	1.0 2.0 3.0 1.5 2.5 >3
0.5	1.0 2.0 3.0
0.5 STREAM GRADIENT ESTIMATE	1.0 1.5 2.0 2.5 3.0 >3
0.5 STREAM GRADIENT ESTIMATE	1.0 2.0 3.0

ADDITIONAL STREAM	I INFORMATION (This Information Must Also be Completed)	<u>:</u>	55-5289a
QHEI PERF	ORMED? - Yes ✓ No QHEI Score (If Yes, A	attach Completed QHEI Form)	
DOWNSTRE WWH Name: Brya CWH Name: EWH Name:	EAM DESIGNATED USE(S) ant Creek	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	0.22
MAPPING: A	ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSH	ED AREA. CLEARLY MARK THE SITE LO	CATION
USGS Quadrangle Nar	me: Modesto NRCS Soil Mag	p Page: NRCS Soil Map Stream	Order _
County: Monroe		hington	
MISCELLAN			
Base Flow Conditions?	P (Y/N):_Y Date of last precipitation:_ 04/24/12	Quantity: 0.15	
Photograph Information			
Elevated Turbidity? (Y/			
Were samples collecte	d for water chemistry? (Y/N): N (Note lab sample no. or ic	d. and attach results) Lab Number:	
	mp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)	
	representative of the stream (Y/N) Y If not, please explain:_		
Additional comments/d	escription of pollution impacts:		
BIOTIC EVA	ALUATION		
Performed? (Y/N): N	(If Yes, Record all observations. Voucher collections optio	· ·	
Fish Observed? (Y/N)_ Frogs or Tadpoles Obs	Voucher? (Y/N) N Salamanders Observed? (Y/N) Served? (Y/N) N Aquatic Macroinverteb	Voucher? (Y/N) N Voucher? (`	(/N) N
Comments Regarding	Biology:		
DRAWII	NG AND NARRATIVE DESCRIPTION OF STREAM	REACH (This <u>must</u> be completed	ted):
Include importa	nt landmarks and other features of interest for site evaluation	and a narrative description of the stream	n's location
_			
FLOW -	See Stream Assessment Form		
	S5-S289a for site topographic maaerial photograph, and resource		
	activit photograph, and resource	hinocoarabiia	

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Modesto

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 35

Legal Drain (Y/N): N

UTME: 1778792 ft **UTMN**: 14286008 ft

Section:	3
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.7 feet

USGS Quadrangle:

OHWM Width: 1.7 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.05 sq.

Watershed Area: 0.05 sq mi Predominant Sub: Gravel/silt

Stream S5-S289c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	20	0.01	0.00
5	19	0.01	0.00
6	19	0.01	0.00
7	19	0.01	0.00
8	19	0.01	0.00
RPA 8	19	0.01	0.00

Description of Potential Impact:

Impacts to S5-S289c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and silt. There is no riparian buffer associated with this channel's left bank and a wide riparian buffer along its right bank. The floodplain consists of a tract immature forest land along the right floodplain area and transportation (North Turkey Track Road) along the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289c are on the second page of this form.





Photograph Taken Downstream



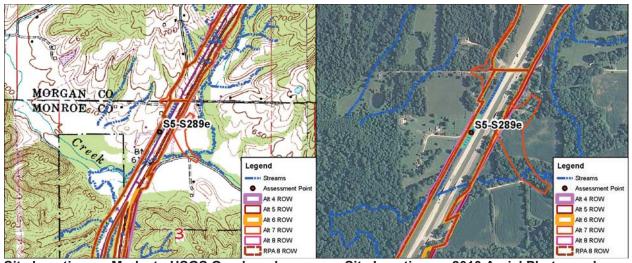
Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

35

SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S289c DRAINAGE AREA (mi²) 0.05 SITE NUMBER 60 LAT. 39.33786 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.51059) (Natural-Class I) DATE **04/26/12** KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 25% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% Substrate 15% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 60% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 15 0% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 5 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.37 15 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box) Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) ■ Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STRE	AM INFORMATION (This Information Must A	Also be Complete	d):	S5-S289c
QHEI PER	RFORMED? - Yes ✓ No QHEI Score	(If Yes,	Attach Completed QHEI Form)	
DOWNST	REAM DESIGNATED USE(S)	,	,	
WWH Name: B	• ,		Distance from Evaluated St	ream 0.21
CWH Name:			Distance from Evaluated Str	eam _
EWH Name:			Distance from Evaluated Str	eam _
MAPPING	: ATTACH COPIES OF MAPS, INCLUDING THE	ENTIRE WATERS	SHED AREA. CLEARLY MARK THE	SITE LOCATION
USGS Quadrangle N	Name: Modesto	NRCS Soil M	ap Page: NRCS Soil Map	Stream Order
County: Monroe	То	wnship / City: W a	ashington	
MISCELLA Base Flow Condition		04/24/12	Quantity: 0.15	
Photograph Information				
Elevated Turbidity?	N	65%		•
Were samples collection	cted for water chemistry? (Y/N): _N (Note	e lab sample no. or	rid. and attach results) Lab Numbe	r:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U	Conductivity (µmhos/c	em)
Is the sampling reac	h representative of the stream (Y/N)	not, please explain	:	
Additional comments	s/description of pollution impacts:			
BIOTIC E	VALUATION			
Performed? (Y/N): _	N (If Yes, Record all observations. Vou ID number. Include appropriate field			
Fish Observed? (Y/N Frogs or Tadpoles C	N Voucher? (Y/N) N Salamander	s Observed? (Y/N	N Voucher? (Y/N) N	ucher? (Y/N)
Comments Regardin	ng Biology:			
DRAV	VING AND NARRATIVE DESCRIPTION	ON OF STREA	M REACH (This <u>must</u> be co	ompleted):
Include impo	rtant landmarks and other features of interes	t for site evaluatio	n and a narrative description of th	ne stream's location
	See Stream Assessment 1	Form		
_	S5-S289c for site topog		an	
FLOW		_	_	
	aerial photograph, and	resource	photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Watershed: 05120201180

Channelized/Type: Yes/Dump Rock Gutter
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 27 Legal Drain (Y/N): N

UTME: 1778715 ft **UTMN**: 14285683 ft

USGS Quadrangle: Modesto

Section: 3 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.6 feet OHWM Depth: 0.3 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.05 sq mi

Watershed Area: 0.05 sq m Predominant Sub: Artificial

Stream S5-S289e – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	400	0.02	0.00	
5	400	0.02	0.00	
6	400	0.02	0.00	
7	400	0.02	0.00	
8	400	0.02	0.00	
RPA 8	400	0.02	0.00	

Description of Potential Impact:

Impacts to S5-S289e for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter. There is no riparian buffer associated with this disturbed channel. The adjacent floodplain consists of transportation along both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289e are on the second page of this form.



Photograph Taken Upstream



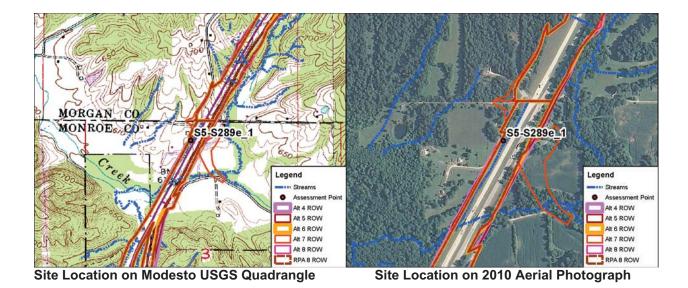
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289e RIVER BASIN White River DRAINAGE AREA (mi²)	0.05
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33696 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51086) (Dump Rock Gutter-Modified	Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	7
Ortho (*2 mm) [o pto]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	15
	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 9	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m S 1.0 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] X NOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m S 1.0 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] X NOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (Most Predominant per Bank) Moderate 5-10m Mature Forest, Wetland Moderate 5-10m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Open Pasture, Row C This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Repeable RIPARIAN WIDTH FLOODPLAIN QUALITY Repeable RIPARIAN WIDTH FLOODPLAIN QUALITY Repeable Residential, Park, New Field Open Pasture, Row C To None Fenced Pasture Mining or Construction COMMENTS Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	1896
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek Distance from Evaluated Stream	
CWH Name: Distance from Evaluated Stream	_
EWH Name:	_
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	_
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: Monroe Township / City: Washington	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/24/12 Quantity: 0.15	7
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 100%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:	_
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	_
Additional comments/description of pollution impacts:	_
BIOTIC EVALUATION	
Performed? (Y/N): _ N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	he site
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N	
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	
Confinents Regarding Biology.	
DRAWING AND NADDATIVE DECORIDATION OF OTDEAM DEACH (This most be seen but all)	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location.	n
See Stream Assessment Form	
S5-S289e for site topographic map,	
aerial photograph, and resource photographs	





Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:NWTownship:T10N

Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 2.0 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.4 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes

Evaluation Type:HHEIIDEM Jurisdiction:YesEvaluation Score:27Watershed Area:0.05 sq miLegal Drain (Y/N):NPredominant Sub:Artificial

UTME: 1778817 ft **UTMN**: 14285919 ft

Stream S5-S289e_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	86	0.01	0.01	
5	85	0.01	0.01	
6	85	0.01	0.01	
7	85	0.01	0.01	
8	85	0.01	0.01	
RPA 8	85	0.01	0.01	

Description of Potential Impact:

Impacts to S5-S289e_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located in between North Turkey Track Road and SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the left bank and North Turkey Track Road on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289e_1 are on the second page of this form.



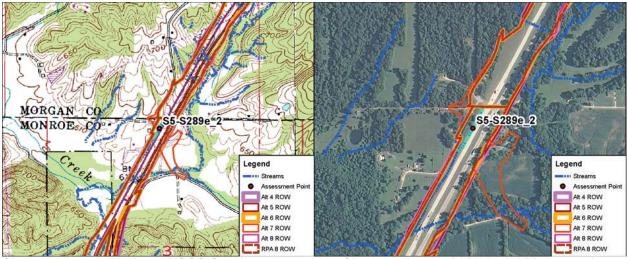
Photograph Taken Upstream





SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289e_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.05
LENGTH OF STREAM REACH (ft) 98 LAT. 39.33761 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51050) (Concrete Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to This	structions
STREAM CHANNEL	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Point
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of O. O.O.V. (A) Substrate Percentage (B)	-
Bldr Slabs, Boulder, Cobble, Bedrock Check Check 100%	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
	<u> </u>
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): 0.60	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Shrub or	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Ploop Pasture, Row of Stream Flowing FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee) Moist Channel, isolated pools, no flow (Intermittee)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream AND FLOODPLAIN QUALITY L R (Per Bank) Wide > 10 m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V / V Urban or Industrial Narrow < 5 m Residential, Park, New Field Open Pasture, Row of Stream Flowing Moist Channel, isolated pools, no flow (Intermitted Dry channel, no water (Ephemeral)) COMMENTS Moist Channel, isolated pools, no flow (Intermitted Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field Open Pasture, Row of Subsurface flow with isolated pools (Interstitial) COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And PLOODPLAIN QUALITY RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Penced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field Open Pasture, Row of Subsurface flow with isolated pools (Interstitial) COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30 5 Crop on ent)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: NW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 1.2 feet

Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet Stream Type: Ephemeral USCOE Jurisdiction: No Evaluation Type: HHEI IDEM Jurisdiction: No

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1778963 ft **UTMN**: 14286108 ft

Stream S5-S289e_2 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	554	0.02	0.00	
5	554	0.02	0.00	
6	554	0.02	0.00	
7	554	0.02	0.00	
8	554	0.02	0.00	
RPA 8	554	0.02	0.00	

Description of Potential Impact:

Impacts to S5-S289e_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with either bank of this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289e_2 are on the second page of this form.



Photograph Taken Upstream

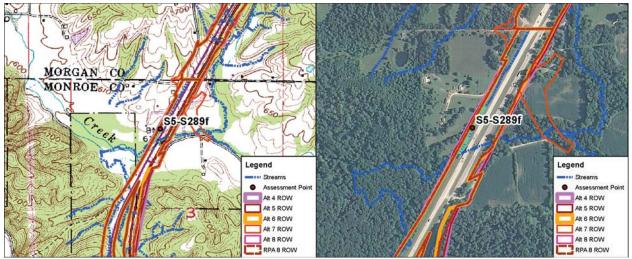


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289e_2 RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33813 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50998) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	UUE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 4
GRAVEL (2-64 mm) [9 pts] 0% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	<u> </u>
Total of Percentages of 0.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.37	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m Mature Forest, Wetland Conservation Tillage	
Field Field Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	op
✓ None Fenced Pasture Mining or Construction COMMENTS	
	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent))
Subsurface flow with isolated pools (Interstitial) On Machine Comments	
COMMENTS_	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
0.5 1.5 2.5 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	
STREAM GRADIENT ESTIMATE	
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe	00 ft)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:NWTownship:T10NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120201180 OHWM Width: 5.2 feet Channelized/Type: Yes/Roadside Ditch **OHWM Depth:** 0.5 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 48 Watershed Area: 0.05 sq mi
Legal Drain (Y/N): N Predominant Sub: Sand/gravel

UTME: 1778484 ft **UTMN**: 14285301 ft

Stream S5-S289f – Modified Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	565	0.06	0.07	
5	565	0.06	0.07	
6	565	0.06	0.01	
7	565	0.06	0.01	
8	565	0.06	0.01	
RPA 8	565	0.06	0.01	

Description of Potential Impact:

Impacts to S5-S289f for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand, gravel, and silt. There is no riparian buffer associated with this roadside ditch. The adjacent floodplain consists of transportation along the left bank and new field along the right. This ditch flows directly into Bryant Creek. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289f are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



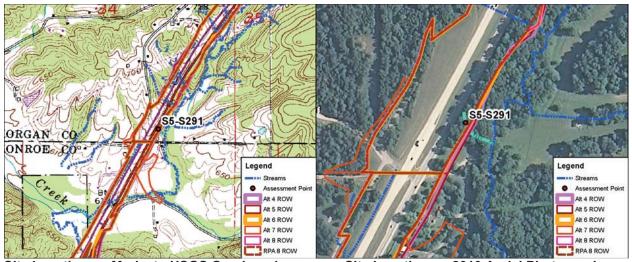
SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S289f RIVER BASIN White River DRAINAGE AREA (mi²) 0	.05
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33592 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51169) (Roadside Ditch-Modified Class	ss II)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDDER (>256 mm) [16 pts] BUDDER (>20% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Point
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 4
☐ GRAVEL (2-64 mm) [9 pts] 30% MUCK [0 pts] 0% ☐ SAND (<2 mm) [6 pts]	18
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock O.00% (A) Substrate Percentage Check O.00% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 - 30 cm [30 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 4.9'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.49	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN ZUNE AND FLUUDPLAIN QUALITY ACNOTE: RIVERT EIL IT JANG RIGHT (R) AS TOOKING GOWNSTIERING	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	
RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage	
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Urban or Industrial	20
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Unit Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Vir Diparticular (Not Predominant per Bank) Narrow <5m Narrow <5m Open Pasture, Row Cro	pp
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Pow Cre	op -
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m Residential, Park, New Field FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction	op -
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	-
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest,	-
RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	-
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Wetl	-

ADDITIONAL STREAM INFORMATION (This Information Must Als	S5-S289f o be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score	
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Bryant Creek	Distance from Evaluated Stream 0.21
CWH Name:	
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Town	ship / City:Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation:	04/24/12 Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N):N Canopy (% open):100	%
Were samples collected for water chemistry? (Y/N): _N (Note la	b sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not	, please explain:
Additional comments/description of pollution impacts:	
· / - · · ·	er collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders (Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION	OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest fo	r site evaluation and a narrative description of the stream's location
G = - G +	7



See Stream Assessment Form S5-S289f for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 18

UTME: 1779447 ft **UTMN**: 14286593 ft

Ν

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 2.5 feet OHWM Depth: 0.1 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

Watershed Area: 0.01 sq mi Predominant Sub: 0.01 sq mi Clay/gravel

Stream S5-S291 – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	103	0.01	0.39	
5	106	0.01	0.39	
6	81	0.01	0.32	
7	83	0.01	0.31	
8	82	0.01	0.31	
RPA 8	82	0.01	0.31	

Description of Potential Impact:

Impacts to S5-S291 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of clay, gravel, and sand. There is a wide riparian corridor on the left bank and a moderately-wide riparian zone on the left bank where these Alternatives cross this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S291 are on the second page of this form.



Photograph Taken Upstream



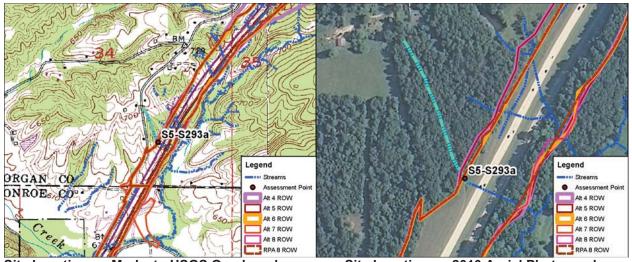
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S291 RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33945 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.50826) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDDER (>256 mm) [16 pts]	Point
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts]	Max = 4
GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] 16% ARTIFICIAL [3 pts] 0% 0%	13
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	IVIAX-30
COMMENTS OHW = 2.5'/1' AVERAGE BANKFULL WIDTH (meters): 0.76	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Mature Forest, Wetland Conservation Hinage	
Field — Open Pasture Pow Cr	an
Narrow <5m Residential, Park, New Field J	7
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent))
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None	
STREAM GRADIENT ESTIMATE	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/1	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S291
QHEI PERFORMED? - Yes V No QHEI Score (If Yes, Attach	n Completed QHEI Form)
CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED A	REA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Pag	ge: NRCS Soil Map Stream Order
County: Morgan Township / City: Baker	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Is the sampling reach representative of the stream (Y/N) If not, please explain:	Quantity: 0.25 d attach results) Lab Number: Conductivity (µmhos/cm)
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. ID number. Include appropriate field data sheets from the Prima Voucher? (Y/N) N Salamanders Observed? (Y/N) N Salamanders Observed? (Y/N) N Aquatic Macroinvertebrates Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STREAM RE	NOTE: all voucher samples must be labeled with the site ary Headwater Habitat Assessment Manual) Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N)
See Stream Assessment Form S5-S291 for site topographic map, aerial photograph, and resource pho	a narrative description of the stream's location





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

05120201180 Watershed: Channelized/Type: No/Natural Stream Type: **Ephemeral Evaluation Type:** HHEI

Evaluation Score: 31 Legal Drain (Y/N): Ν

UTME: 1779504 ft **UTMN:** 14287237 ft

USGS Quadrangle:	Modesto
Section:	34
Township:	T11N
IDEM 303(d) List:	N/A
OHWM Width:	4.5 feet
OHWM Depth:	0.8 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Predominant Sub: Clay/sand

Stream S5-S293a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	70	0.01	0.15
5	65	0.01	0.13
6	38	0.01	0.05
7	38	0.01	0.05
8	38	0.01	0.05
RPA 8	38	0.01	0.05

Description of Potential Impact:

Impacts to S5-S293a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S293a are on the second page of this form.



Photograph Taken Upstream



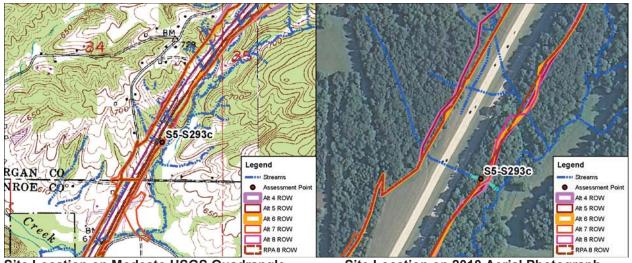
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S293a RIVER BASIN White River DRAINAGE AREA (mi²) 0	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34122 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.50805) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 60%	Max = 40
GRAVEL (2-64 mm) [9 pts]	11
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 4.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 1.37	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	.0
RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\times \text{NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$	10
RIPARIAN ZONE AND FLOODPLAIN QUALITY ♣NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5-10m Moderate 5-10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Moderate 5-10m Moderate 5-10m Urban or Industrial	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) I Mature Forest, Wetland I Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture Row Cr	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m L R (Most Predominant per Bank) I Mature Forest, Wetland I Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture Row Cr	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m RIPARIAN ZONE AND FLOODPLAIN QUALITY FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Urban or Industrial Residential, Park, New Field Open Pasture, Row Cr	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field Fenced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box):	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A NoTE: River Left (L) and Right (R) as looking downstream A Note: A River Left (L) and Right (R) as looking downstream A Note: A River Left (L) and Right (R) as looking downstream A Note: A River Left (L) and Right (R) as looking downstream A Note: A River Left (L) and River Left	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None None COMMENTS Fenced Pasture Fenced Pasture Flow REGIME (At Time of Evaluation) RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Ban	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN WIDTH WNOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NOTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Right (R) as looking downstream NoTE: River Left (L) and Ri	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predomi	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Cr None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	ор
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5-10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (op

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Completed):
QHEI PERF	FORMED? - Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTR WWH Name: Bry CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	ame: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Morgan	Township / City: Baker
MISCELLA Base Flow Conditions	
Photograph Information	
Elevated Turbidity? (Y	N DOV
, ,	ed for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: To	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach	representative of the stream (Y/N) If not, please explain:
Additional comments/	description of pollution impacts:
BIOTIC EV Performed? (Y/N): Fish Observed? (Y/N) Frogs or Tadpoles Ob Comments Regarding	served? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
	ING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): ant landmarks and other features of interest for site evaluation and a narrative description of the stream's location See Stream Assessment Form S5-S293a for site topographic map,
. = 0	aerial photograph and resource photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Ephemeral Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 60

Legal Drain (Y/N): Ν UTME: 1779783 ft **UTMN:** 14287107 ft

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 3.2 feet OHWM Depth: 1.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Gravel/sand

-			
Stream S5-S293c – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	89	0.01	0.29
5	81	0.01	0.29
6	80	0.01	0.28
7	82	0.01	0.28
8	82	0.01	0.28
RPA 8	55	0.01	0.25

Description of Potential Impact:

Impacts to S5-S293c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S293c are on the second page of this form.



Photograph Taken Upstream

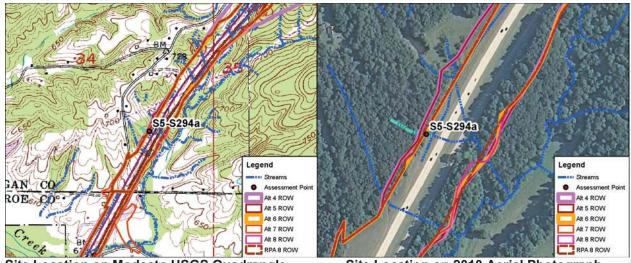




	THIEF COOLS (Sum of metrics 1, 2, 3) .	
SITE NAME/LOCATION I-69 Section 5	NF 0000	
STE NOWDER	65-S293c RIVER BASIN White River DRAINAGE AREA (mi²) 0.0)1
LENGTH OF STREAM REACH (ft) 150	LAT. 39.34086 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER DEW/KS	COMMENTS (Long: -86.50706) (Natural-Class III)	
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ctions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL	VERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI Metric
TYPE PI BLDR SLABS [16 pts]	PERCENT TYPE PERCENT 10%	Points
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 5%	
BEDROCK [16 pt]	Fine DETRITUS [3 pts]	Substrat Max = 40
COBBLE (65-256 mm) [12 pts]	CLAY or HARDPAN [0 pt]	max i
GRAVEL (2-64 mm) [9 pts]	41% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts]	39% ARTIFICIAL [3 pts] 0%	
Total of Percentages of 5	5.00% (A) Substrate Percentage Check 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
- ,	· · · · · · · · · · · · · · · · · · ·	Pool Dep
evaluation. Avoid plunge pools from road > 30 centimeters [20 pts]	d culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 11	
		- · · ·
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check <i>ONLY</i> one box): T	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 3.2'/1.2'	AVERAGE BANKFULL WIDTH (meters): 1.40	15
	This information must also be completed	
RIPARIAN ZONE AND FLOODP RIPARIAN WIDTH	PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ FLOODPLAIN QUALITY	
L R (Per Bank)	LR (Most Predominant per Bank) LR	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop)
None COMMENTS	Fenced Pasture Mining or Construction	
FLOW DECIME (At Time of Five	alustical (Charle ONU Vena harr)	
Stream Flowing	aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poo		
COMMENTS_		
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100	ft)

ADDITIONAL STREAM	S5-S293 M INFORMATION (This Information Must Also be Completed):
	FORMED? - Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
	EEAM DESIGNATED USE(S)
WWH Name: Bry	• •
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Na	Modesto NRCS Soil Map Page: 59 NRCS Soil Map Stream Order 1
County: Morgan	Township / City: Baker
MISCELLAN	NEOUS
Base Flow Conditions	?? (Y/N):_Y Date of last precipitation:05/10/06 Quantity:0.89
Photograph Informatio	on:
Elevated Turbidity? (Y	//N): _N
Were samples collecte	ed for water chemistry? (Y/N): _ N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach	representative of the stream (Y/N) If not, please explain:
Additional comments/	description of pollution impacts:
Additional comments/	description of political impacts.
BIOTIC EV	<u>/ALUATION</u>
Performed? (Y/N): _ N	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the s
	ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N)	
Frogs or Tadpoles Ob Comments Regarding	
Comments Regarding	a biology.
L	
DRAWI	ING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
іпсій де і тропа	ant landmarks and other features of interest for site evaluation and a narrative description of the stream's location
	See Stream Assessment Form
	S5-S293c for site topographic map,
FLOW -	
	aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W Watershed: 05120201180

Channelized/Type: No/Natural **Ephemeral Stream Type: Evaluation Type:** HHEI

Evaluation Score: 14 Legal Drain (Y/N): Ν

UTME: 1779704 ft **UTMN:** 14287584 ft

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 2.1 feet OHWM Depth: 0.4 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Clay/sand

Stream S5-S294a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	66	0.01	0.17
5	63	0.01	0.17
6	41	0.01	0.07
7	42	0.01	0.07
8	43	0.01	0.07
RPA 8	43	0.01	0.07

Description of Potential Impact:

Impacts to S5-S294a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S294a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



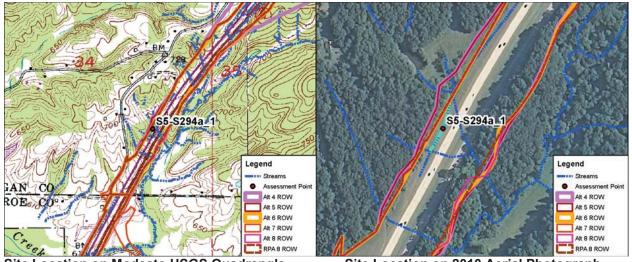
ChieFPA Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S294a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34217 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50733) (Natural-Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Insti	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metric Points
BLDR SLABS [16 pts]	Politi
BEDROCK [16 pt] BEDROCK [16 pt] FINE DETRITUS [3 pts]	Substrat Max = 40
COBBLE (65-256 mm) [12 pts]	IVIAX - 4
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	9
Substate Percentage	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' AVERAGE BANKFULL WIDTH (meters): 0.64	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### D.64 ### Conservation Tillage AVERAGE BANKFULL WIDTH (meters): ### D.64 ### D.64 Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### D.64 ### D.64 ### Conservation Tillage ### Image: Im	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5-10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Moderate 5-10 m Moderate 5-10 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] 2	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.170.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Wide >10 m Moderate 5-10 m Residential, Park, New Field Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.170.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information IN	<u>flust Also be Completed):</u>	
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)		
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name: MAPPING: ATTACH COPIES OF MAPS, INCLUDIN	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream G THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order	
County: Morgan	Township / City: Baker	
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipital Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): Were samples collected for water chemistry? (Y/N): N Field Measures: Temp (°C) Dissolved Oxygen (m) Is the sampling reach representative of the stream (Y/N) Additional comments/description of pollution impacts:	20% (Note lab sample no. or id. and attach results) Lab Number:	
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher?		
See Stream Assessm S5-S294a for site aerial photograph,		

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Score: 12 Legal Drain (Y/N): N

Evaluation Type:

UTME: 1779801 ft **UTMN**: 14287693 ft

HHEI

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** No **IDEM Jurisdiction:** No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S294a_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	304	0.01	0.05	
5	304	0.01	0.05	
6	282	0.01	0.00	
7	282	0.01	0.00	
8	282	0.01	0.00	
RPA 8	282	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S294a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S294a_1 are on the second page of this form.



Photograph Taken Upstream



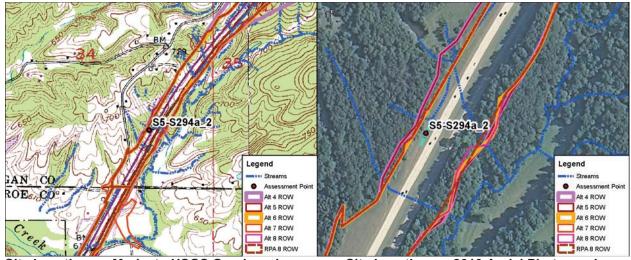
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S294a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34247 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50699) (Concrete Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt]	Max = 40
☐ GRAVEL (2-64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of Occide (A) Substrate Percentage (B)	
Bldr Slabs, Boulder, Cobble, Bedrock Check Check Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX - 3
> 22.5 - 30 cm [30 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] < 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Floow Regime (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee) Moist Channel, isolated pools, no flow (Intermittee)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): OMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): O.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field Open Pasture, Row C Ninning Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOO	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5-10m Moderate 5-10m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field Open Pasture, Row C Ninning Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30

Save as pdf

Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1779706 ft **UTMN**: 14287507 ft

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** No **IDEM Jurisdiction:** No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

	Stream S5-S294a_2 – Modified Class I PHWH						
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres)							
4	146	0.01	0.12				
5	146	0.01	0.12				
6	146	0.01	0.06				
7	146	0.01	0.08				
8	146	0.01	0.08				
RPA	146	0.01	0.08				

Description of Potential Impact:

Impacts to S5-S294a_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S294a_2 are on the second page of this form.



Photograph Taken Upstream

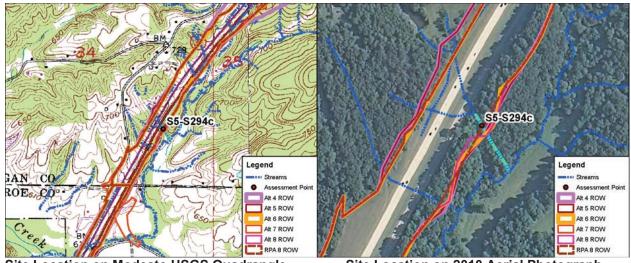


Photograph Taken Downstream

Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 S5-S294a_2 RIVER BASIN White River DRAINAGE AREA (mi²) 0.01 SITE NUMBER 146 LAT. 39.34196 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.50732) (Concrete Gutter-Modified Class I) DATE **04/26/12** SCORER KSS/DEW NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE PERCENT PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% **Substrate** 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankfull > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' 5 AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed

	RIPARIAN ZONE AND FLOODPL	AIN QUAL	.ITY ☆NOTE: Ri	ver Left (L) and Ri	ght (R) as lo	ooking downstream 🖈
	RIPARIAN WIDTH	<u>FLOODF</u>	LAIN QUALITY			
<u>L F</u>	(Per Bank)	L R	(Most Predominant	per Bank)	L R	
	Wide >10m		Mature Forest, Wetl	and		Conservation Tillage
	Moderate 5-10m		Immature Forest, Si Field	hrub or Old	/ /	Urban or Industrial
	Narrow <5m		Residential, Park, N	lew Field		Open Pasture, Row Crop
/ /	None		Fenced Pasture			Mining or Construction
	COMMENTS					
	FLOW REGIME (At Time of Evaluation Stream Flowing Subsurface flow with isolated pools COMMENTS_	, ,				ols, no flow (Intermittent) hemeral)
/	SINUOSITY (Number of bends per None 0.5	er 61 m (200 1.0 1.5	Oft) of channel) (Ch	eck ONLY one box 2.0 2.5	x):	3.0 >3
STRE	EAM GRADIENT ESTIMATE	Mode	erate (2 ft/100 ft)	Moderate to S	Severe	Severe (10 ft/100 ft)





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck Quarter: SE

Range: R1W Watershed: 05120201180 Channelized/Type: No/Natural Stream Type: Ephemeral **Evaluation Type:** HHEI 29

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1779995 ft **UTMN:** 14287497 ft

USGS Quadrangle:	Modesto
Section:	34
Township:	T11N
IDEM 303(d) List:	N/A
OHWM Width:	5.0 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m
D - 1 1 1 O 1	

Predominant Sub: Clay/sand

Stream S5-S294c – Class I PHWH						
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres)						
4	109	0.01	0.47			
5	111	0.01	0.48			
6	116	0.01	0.51			
7	126	0.01	0.47			
8	126	0.01	0.47			
RPA 8	80	0.01	0.36			

Description of Potential Impact:

Impacts of S5-S294c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S294c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



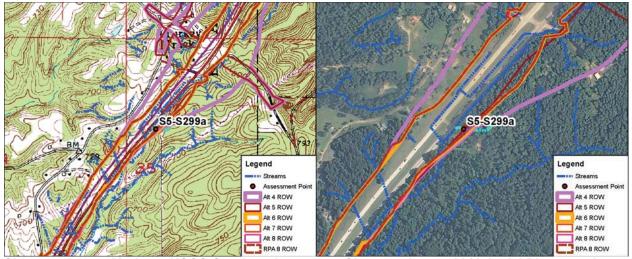
ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

	THIEF GOOLG (Sum of metalos 1, 2, 3)	
SITE NAME/LOCATION I-69 Section 5	DE 0004	
STIL NOWIDEN	S5-S294c RIVER BASIN White River DRAINAGE AREA (mi²) 0.0	1
LENGTH OF STREAM REACH (ft) 200	LAT. 39.34193 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KS	COMMENTS (Long: -86.50630) (Natural-Class I)	
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	ctions
STREAM CHANNEL NONE / NA MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECENT OR RECENT OR NO RECENT OR NO RECENT OR NO RECENT OR RECEN	VERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metri
TYPE P BLDR SLABS [16 pts]		Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	
□ □ BEDROCK [16 pt]	0% FINE DETRITUS 13 pts1	Substra Max = 4
COBBLE (65-256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 75%	WIAX - 4
GRAVEL (2-64 mm) [9 pts]	0% MUCK [0 pts] 0%	9
SAND (<2 mm) [6 pts]	15% ARTIFICIAL [3 pts] 0%	
Total of Percentages of	0.00% (A) Substrate Percentage	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS		
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TIPES: 0 TOTAL NUMBER OF SUBSTRATE TIPES: 3	
		Pool Dep
evaluation. Avoid plunge pools from roa > 30 centimeters [20 pts]	ad culverts or storm water pipes) (Check ONLY one box): > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 - 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
	MAXIMOM 1 GGE BEI 111 (Gentimeters).	
3. BANK FULL WIDTH (Measured as the		Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 5'/0.5'	AVERAGE BANKFULL WIDTH (meters): 1.52	20
RIPARIAN ZONE AND FLOODF	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m	Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	
None None		
COMMENTS	Fenced Pasture Mining or Construction	
FLOW DECIME (A) Time of F	of office). (Obsert ONLY one has)	
Stream Flowing	aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poo		
COMMENTS_		
SINUOSITY (Number of bends r	per 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
✓ 0.5	1.5 2.5 >3	
	_	
STREAM GRAD <u>IEN</u> T ESTIMATE		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft	ft)

ADDITIONAL STREAM INFORMATIO	N (This Information Must A	Also be Comple	eted):		S5	-S294c
QHEI PERFORMED? -	Yes ✓ No QHEI Score	(If Y	es, Atta	ch Completed QHEI Fo	orm)	
DOWNSTREAM DESIGNAT	ED LISE(S)					
WWH Name: Bryant Creek	ED 03E(3)			Distance from Evalu	ated Stream	
CWH Name:				Distance from Evalua		
EWH Name:				_ _ Distance from Evalua	ated Stream _	
MAPPING: ATTACH COPIES	S OF MAPS, INCLUDING TH	E ENTIRE WATE	RSHED	AREA. CLEARLY MA	RK THE SITE LOCAT	ION
USGS Quadrangle Name: Modesto		NRCS Soil	l Map P	age: NRCS S	Soil Map Stream Orde	r
County: Morgan	To	ownship / City:	Baker			
MISCELLANEOUS						
Base Flow Conditions? (Y/N):_Y	Date of last precipitation:_	10/13/11	l	Quantity: 0.2	25	
Photograph Information:						
Elevated Turbidity? (Y/N): N	Canopy (% open):	0%				
Were samples collected for water cher	mistry? (Y/N): N (Not	e lab sample no	. or id. a	and attach results) Lab	Number:	
. , , , , , , , , , , , , , , , , , , ,	Dissolved Oxygen (mg/l)			Conductivity (μ		
Is the sampling reach representative of	f the stream (Y/N) Y If	not, please expl	ain:			
Additional comments/description of po	llution impacts:					
PIOTIC EVALUATION						
BIOTIC EVALUATION						
Performed? (Y/N): (If Yes,	Record all observations. Vol				•	with the site
	ber. Include appropriate field				Assessment Manual)	
Fish Observed? (Y/N) Vouch	er? (Y/N) N Salamande	rs Observed? (Y	/N) N	Voucher? (Y/N)		1
Frogs or Tadpoles Observed? (Y/N)	Voucher? (Y/N) N A	quatic Macroinv	ertebrat	es Observed? (Y/N)	Voucher? (Y/N)	
Comments Regarding Biology:						
						
DRAWING AND NA	RRATIVE DESCRIPTION	ON OF STRE	AM R	EACH (This must	<u>t</u> be completed):	
Include important landmarks a	nd other features of interes	t for site evalua	ition an	d a narrative descript	ion of the stream's lo	cation
C00 C+7	eam Assessment	- Form				
				_		
1 LOW 4	c for site top					
aerial	photograph, ar	nd resour	rce j	photographs		

Save as pdf





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck Quarter: NW

Range: R1W Watershed: 05120201180 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 30

Legal Drain (Y/N): Ν

UTME: 1781650 ft **UTMN:** 14289711 ft

USGS Quadrangle:	Modesto, Hindustan
-------------------------	--------------------

Section: 35 Township: T11N IDEM 303(d) List: N/A OHWM Width: 3.4 feet OHWM Depth: 0.4 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.11 sq mi

Predominant Sub: Sand/clay

Stream S5-S299a – Class I PHWH							
Alternatives Length of Impact (feet) Area of Impact (acres) Riparian Impact (acres							
4	177	0.01	0.88				
5	94	0.01	0.31				
6	150	0.01	0.57				
7	136	0.01	0.51				
8	136	0.01	0.51				
RPA 8	85	0.01	0.36				

Description of Potential Impact:

Impacts to S5-S299a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S299a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFP Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S299a RIVER BASIN White River DRAINAGE AREA (mi²)	.11
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34798 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.50041) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65-256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 20%	Max = 40
GRAVEL (2-64 mm) [9 pts]	10
Orato (semin) [opto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 3.4'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.10	15
This is formation much to the second	
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY L_R_ (Per Bank) _L_R_ (Most Predominant per Bank) _L_R	
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage	
Moderate 5-10m Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	op
None Fenced Pasture Mining or Construction	
COMMENTS	-
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
)
COMMENTS	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	_
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 2.5 >3)
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	L

ADDITIONAL STREA	M INFORMATION (This Info	ormation Must A	Also be Completed)	:	S5-S299
				<u>-</u> .ttach Completed QHEI Form)
	EAM DESIGNATED USE(S)			·	,
WWH Name: Bry				Distance from Evaluate	d Stream 0.21
CWH Name: _				Distance from Evaluated	Stream _
EWH Name:				Distance from Evaluated	I Stream _
		INCLUDING THE	E ENTIRE WATERSH	ED AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto / Hindustan		NRCS Soil Map	Page: NRCS Soil I	Map Stream Order
County: Morgan		To	wnship / City: Bake	er	
MISCELLA	NEOUS				
Base Flow Conditions	? (Y/N): Y Date of las	st precipitation:_	04/24/12	Quantity: 0.15	
Photograph Information	on:				
Elevated Turbidity? (Y	//N): N Canopy	(% open):	60%		
Nere samples collect	ed for water chemistry? (Y/N): _ N (Note	e lab sample no. or ic	d. and attach results) Lab Nur	mber:
			pH (S.U.)	Conductivity (µmh	os/cm)
lo the compling reach	representative of the stream	(V/N) Y	not places avalais:		
is the sampling reach	representative of the stream	(1/14) 11 1	ilot, piease expiairi		
Additional comments/	description of pollution impac	ots:			
BIOTIC EV	ALLIATION				
BIOTIC EV	ALUATION				
Performed? (Y/N): _			·	nal. NOTE: all voucher sample	
				Primary Headwater Habitat Ass	sessment Manual)
Fish Observed? (Y/N)	N Voucher? (Y/N) N	Salamander	s Observed? (Y/N)	Voucher? (Y/N) N	N
Frogs or Tadpoles Ob	served? (Y/N) N Vouche	r? (Y/N) N Ac	quatic Macroinverteb	rates Observed? (Y/N) N	Voucher? (Y/N)
Comments Regarding	Biology:				
DRAW	NG AND NARRATIVE	DESCRIPTION	ON OF STREAM	REACH (This must be	e completed):
Include importa	ant landmarks and other fea	tures of interest	t for site evaluation	and a narrative description	of the stream's location
	See Stream Ass	gegament	Form		
_				an.	
FLOW -	S5-S299a for s				
	aerial photogr	raph, and	resource	pnotographs	

